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The Journal

of the

Michigan State Medical Society

The Official Organ of the State and County Medical Societies.

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL.

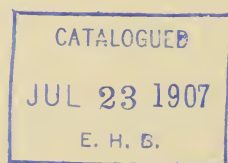
Vol. IV

January to December, 1905.

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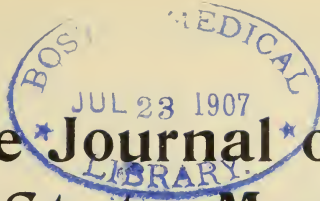
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VOL. IV

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No. 1

Original Articles

ASCITES AND PELVIC DISEASE.*

REUBEN PETERSON,
Ann Arbor.

The presence of ascites in connection with disease or neoplasms which we have every reason to believe have their origin in the pelvis, always lends an added interest to any case. The methods of bimanual pelvic examination have been so perfected as to leave very little to be desired in the diagnosis of the ordinary lesions of the uterus and its appendages. I do not mean by this statement to belittle the difficulties of gynecologic diagnosis or to give the impression that such a diagnosis can be made by means of a hasty bimanual examination. Gynecology has probably suffered more than any other specialty from superficial methods of diagnosis and treatment based on the resulting errors. One of the fundamental and consequently one of the most important gynecologic truths is that rarely does inflammatory disease confine itself to a single portion of the genital tract. Yet hardly a week passes that I do not have cases referred to me for certain operations which, if they had been performed, would have left the pa-

tient much worse off than before, since the examiner had failed to notice other lesions of the genital tract. But, by carefully studying each case, both through the history and by careful pelvic examination, either without or with anæsthesia, an approximately accurate diagnosis can be made in the majority of cases. The difficulties of diagnosis are enhanced twofold, however, when ascites is present as a complication. The fluid within the abdominal cavity is very likely to interfere with accurate bimanual mapping out of the uterus and its appendages. It is not uncommon, for example, for a malignant tumor of the ovary to lie high up in the pelvis and be out of reach of the examining finger below. Its abdominal outlines, on the other hand, may be obscured by the accumulation of fluid between it and the parietes.

The difficulties thus placed in the way of the examiner should not serve as discouragements, but should ever spur him on towards the goal of correct diagnosis. By careful study of the history of each case, in combination with the physical signs, it is usually possible to arrive at a

*Read before the Montcalm County Medical Society, July 14, 1900, at Greenville, Mich.

fairly accurate diagnosis without the aid of an exploratory laparotomy. In fact, this latter procedure should be the final and not the first step in the establishment of a diagnosis. The operator making a practice of saying he does not know what is the nature of the growth but will ascertain when he opens the abdomen in the no distant future will find his occupation gone. Surgery means more than whirlwind operating without accurate diagnosis. If it stands for anything, it is for careful, conscientious study of each individual case with the idea of arriving at a correct diagnosis. After every diagnostic expedient has been exhausted, then and only then should the knife be employed.

The physical signs of free fluid in the abdominal cavity are known to you all, but for completeness it may be well to review them in order:

1. *Inspection.* With the abdomen and chest of the patient fully exposed and the latter in the recumbent posture, an abdomen, the seat of free fluid, is seen to be symmetrically distended in the flanks. Unless the accumulation reaches large proportions, the abdomen is broader than it is high. Thus it differs in shape from the dome-shaped abdomen so characteristic of confined fluid as met with in an ovarian cyst. The degree of bulging will depend largely upon the conditions of the abdominal walls. In multiparæ, with flaccid walls, the bulging may be extreme. On the other hand, a large collection of ascitic fluid in a young nullipara may show but little distention in the flanks and the swelling may more nearly resemble that of an ovarian cyst. The umbilicus in ascites may or may not protrude, depending upon the conditions of the wall and the amount of fluid. The superficial abdominal veins may or may not be dis-

tended, depending upon the amount of interference with the return circulation. This phenomenon is not so common in ascites of pelvic origin as it is where the collection is due to some derangement of the liver.

2. *Palpation:* The feel of the abdominal enlargement in ascites will depend upon the condition of the abdominal wall, and the amount of fluid present. With a small amount of fluid and flaccid wall, there will be considerable compressibility. Such an abdomen will feel not unlike that of a very fleshy person. In a nullipara, on the other hand, there will be a tensesness of the abdominal wall which may resemble the feel of an ovarian cyst. The percussion wave elicited by tapping one side of the abdomen and feeling the impulse on the other is distinct in all free ascitic serous accumulations.

3. *Percussion.* Since the fluid will seek the lowest point in the abdominal cavity and the intestines will float on top of the fluid, the percussion note will be flat in the flanks and tympanitic above. With the patient on the back, the flatness will extend above the pubes in the median line to a varying distance according to the amount of fluid present. A change of position of the patient will cause a re-arrangement of the flat and tympanitic percussion notes, owing to the change in the level of the fluid.

4. *Vaginal examination.* Fluctuation may or may not be made out by palpation through the cul-de-sacs. If the fluid can reach the pelvic side of the vaginal wall, fluctuation will be elicited. The reverse will be the case where exudates or new growths are interposed between the fluid and the vaginal walls.

It is comparatively easy to differentiate between a non-encysted ascitic collection

and an ovarian cyst. In the latter, in contradistinctions to the signs just considered, there will be a dome-shaped abdomen. The latter is symmetrical only in the later stages of the disease, after the cyst has risen above the umbilicus. By palpation the cyst wall often can be differentiated. Owing to the semi-solid contents of certain cysts, or in very tense cysts, the percussion wave may be absent. Percussion shows tympany in the flanks and flatness in the median line; except in intraligamentous ovarian cysts, vaginal examination usually fails to detect fluctuation because the upper border of the cyst is carried beyond the reach of the examining finger. The wall of an ovarian cyst may be so thick as to mask the signs of fluctuation.

Where the ascitic fluid is encysted, as not infrequently happens in cases of tubercular peritonitis of pelvic origin, the differential diagnosis between such a collection and an ovarian cyst may be difficult, as shown by the following case:

Mrs. A. H., age 29, married; referred by Dr. J. B. Bradley, of Eaton Rapids, entered my private hospital June 28, 1902, and was operated upon the following day. The patient's family history was negative. She has always been healthy up to her present illness, which is of some months' duration. For the past few months she has noticed a gradual increase in the size of the abdomen. This has been especially noticeable on the left side. She has had but very little pain, but has lost some flesh. An examination showed an abdominal swelling extending from the pubes to just above the umbilicus. The abdomen was asymmetrical, being larger on the left than on the right side. Percussion showed dullness in the left and tympany in the right flank. There was no distinct percussion wave, and when the

patient was placed on the right side the dullness in the left lower abdominal quadrant did not disappear. In the median line, the dullness reached above the umbilicus. What appeared to be a distinct cyst wall could be made out just above the umbilicus. A vaginal examination showed the uterus and appendages fixed in the pelvis, and tender. This should have led to a strong suspicion of tubercular peritonitis, but the absence of positive signs of free fluid, and especially the apparently distinct cyst wall led me to think that I had to deal with an ovarian cyst. Operation the following day showed tubercular peritonitis, probably of pelvic origin; the intestines were matted together and there was encysted fluid in the left side, but quite a large amount free in the abdominal cavity. The cecum was considerably distended. The supposed cyst wall turned out to be rolled up and matted omentum running transversely across the abdomen just above the umbilicus. The breaking up of the adhesions and the evacuation of the encysted fluid resulted in a cure.

Signs of free or encysted fluid in the abdominal cavity, accompanied by enlarged or adherent and tender appendages are strongly suggestive of tubercular peritonitis. The possibility of matting together of the intestines and omentum, and the consequent simulation of intraabdominal solid growths should ever be borne in mind. I have seen an apparently solid malignant tumor in the lower portion of the abdomen associated with free ascitic fluid turn out to be a tubercular peritonitis with an agglutination of intestines and omentum. At times, the history is likewise misleading. In both affections there may be loss of flesh and strength.

There may be only a slight rise of temperature in tubercular peritonitis, and no symptoms pointing towards the pelvis. Even in the presence of large accumulations of ascitic fluid, patients with malignant disease of some of the pelvic organs and an abdomen studded with tubercular growths may be quite free from pain. Later in the disease, pain is more characteristic of malignant affections. A persistent, even though slight rise of temperature, is more indicative of tubercular disease. The tuberculin test is often of advantage for differential diagnosis. In the later stage of malignant disease of the appendages with secondary deposits in the peritoneum and other portions of the body, there may be an elevation of temperature associated with considerable abdominal tenderness.

There are two forms of malignant tumors of the ovary, the adeno-carcinomata and sarcomata, which may be accompanied by ascites. The adeno-papillomata, or papilliferous ovarian cysts, while not histologically malignant, will fall into this category from a clinical standpoint. This is because of their tendency to rupture and the consequent implantation of the papillary masses in other portions of the abdominal cavity. Quite a proportion of ordinary multilocular ovarian cysts will be found histologically to be papilliferous. Hence the necessity of a microscopic examination of every ovarian cyst, for the apparently benign tumor may return after removal, if it is histologically a papilloma.

Clinically, all these malignant types of ovarian growths may be considered together, the distinctions being largely histological. The accompanying ascitic accumulation may be small or may reach enormous proportions. The fluid is usually

bloody and of a high specific gravity. The peritoneum is thickened and injected and apt to be the seat of numerous metastases. The physical signs of cystic or solid tumors of the ovary, accompanied by loss of flesh and prostration, associated with ascites, would lead one to suspect malignant disease. Ascitic fluid is an unusual accompaniment of a benign ovarian cyst.

The following is an illustrative case of malignant disease of the ovary, accompanied by ascites: Miss B., Gyn. No. 924, single, age 57, entered the University Hospital, June 13, 1904, having been referred by Dr. B. A. Tracey, of Manchester. The patient has been a healthy woman until within a few months, when she noticed an enlargement in the right lower abdomen, accompanied by some pain and tenderness on pressure. Recently there has been a decided increase in the abdominal enlargement. There has been a marked loss of flesh and strength. Examination showed a symmetrically distended abdomen with a protrusion of the flanks. On deep palpation, a mass could be made out in the lower right abdominal quadrant. It was slightly movable and nodular. The presence of ascitic fluid was shown by percussion sounds and their change on change of position. Vaginal examination failed to connect the growth with the uterus or appendages. Operation showed the growth to be a partially solid tumor of the right ovary. There were about 6 litres of ascitic fluid. The glands along the aorta in the region of the stomach were enlarged. There were also metastases in the liver.

The prognosis in this case is, of course, unfavorable. Not until a few months ago were her symptoms so severe as to lead her to seek medical advice. It probably was a slow growing malignant tumor

with sudden development of acute symptoms.

In contradistinction to this kind of tumor, where under the best of circumstances the prognosis is unfavorable, ascites is at times associated with benign solid tumors of the ovary, such as fibromata. I have had two such cases in the last three years. I have also had a third case, but this was unassociated with ascites. I have shown in a recent monograph on ovarian fibromata that out of 82 cases collected from the literature, together with my own two cases, at least forty per cent. were accompanied by ascites. In 8 cases the ascitic fluid reached such proportions as to necessitate tapping. One of my cases was tapped 65 times, under the impression that the fluid was a dropsy, due to organic liver trouble.

It is not difficult to make a diagnosis in these cases. While ascites may be present and bimanual examination may show a solid tumor of the ovary, there are no accompanying symptoms. Such a growth is slow growing and, while it may produce ascites, there is no accompanying loss of flesh or strength. The prognosis here is entirely different from where the ascites is due to a malignant growth. The removal of the tumor and the evacuation of the ascitic accumulation will result in a cure if the growth histologically proves to be a fibroma. It is sometimes difficult to distinguish these tumors by the microscope from fibro-sarcomata.

Finally there is a class of cases where it is exceedingly difficult to make a diagnosis of fluid in the peritoneal cavity associated with an ovarian growth. I refer to the so-called pseudo-mucinous ovarian cysts. In these cysts the walls are apt to rupture and allow the escape of the col-

loid-like material into the peritoneal cavity. The contents of such cysts are not fluid, but more nearly resemble masses of jelly. It has been called apple-sauce degeneration of an ovarian cyst. When such a fluid occupies the abdominal cavity, one can see that the signs will differ materially from those where we have to deal with a serous fluid. This material clings to the abdominal wall and the surface of the intestines. It may cause changes in the epithelial layer, and such changes in connection with ruptured pseudo-mucinous cysts give rise to what is known as pseudo-myxoma-peritonei. When such a cyst ruptures and its contents are poured out into the peritoneal cavity, a low grade of peritoneal inflammation is set up. Such an abdomen will be tender and held perfectly rigid by the involuntary contractions of the recti muscles. A fluid wave will be absent. Percussion will show not only dullness in the median line, but also in the flanks. The percussion note will not change on change of position, because the contents are too thick to flow to the other side of the abdomen. Such cysts can be diagnosed by considering the history of abdominal enlargement originating in one side of the abdomen and gradually becoming symmetrical. Suddenly, there is a development of abdominal tenderness, accompanied by more or less fever. Then the signs noted above will be found present, viz.: dullness in the flanks and also in the median line, and no change of percussion note when the patient changes position. The prognosis in these cases will depend largely upon the length of time which has elapsed since the rupture of the cyst. If the colloid material has become organized, the mortality is considerable, no matter how thoroughly one may try

to wash the substance away at the time of operation. If, on the other hand, the peritoneum has not become changed, the removal of the cyst and the thorough wash-

ing out of the cavity ought to result in a cure. I have had four such cysts within the last three years with three deaths and one recovery.

THE TREATMENT OF COMPOUND FRACTURES.*

A. I. LAWBAUGH,
Calumet.

In the treatment of compound fractures it must be remembered that we are dealing with a lacerated wound of delicate structures, easily infected and of lowered vitality.

These fractures, regarded with extreme alarm in olden days, are still not to be treated in a careless manner. Chelius, of Heidelberg, wrote in 1821: "The inflammation is always very great and requires strict antiphlogistic treatment, blood-letting, leeches, cold applications, and opium, and that mortification and delirium tremens may occur, especially in old people, and that if sleep does not take place, death is the consequence. On dissection, frequently there is exudation on the archnoid, pus in the joints and in the sheaths of the tendons."

This picture brings to our minds constitutional disturbances from an infected wound improperly treated.

In the treatment of compound fractures, modern surgery has made advances which are not exceeded in any other branch of surgery. In modern hospital treatment, it has attained to a nearly perfect state,

while in general practice outside of the hospital there yet remains much to be desired, yet by strict observance of well-defined lines of asepsis and immobilization, many useful limbs can be saved that formerly were the victims of that mutilating operation, amputation.

Compound fractures belong to the class of injuries which cannot receive too prompt and careful attention at the hands of the attending surgeon. In the treatment of this condition the first thing which the surgeon should have in mind is the wound, and the securing of its primary healing. Our effort, therefore, must always be to substitute a closed fracture for an open one, and then to treat the damaged bone on the ordinary principles.

With successful attention directed to this end, the fracture can often be quickly converted into a simple one.

The surgeon must "*start right*," and nowhere else in surgery is this so important, and the surgeon can never hope by scrupulous later attention to atone for his laxness of the first dressing. I desire to particularly emphasize the matter of rigid asepsis and immobilization.

The surgeon should *never* attempt to manipulate the injured parts in the endeavor to make a diagnosis, until the patient has been placed in proper condition and place for good work. The fate of a

*Read before the Section on Surgery, Ophthalmology and Otology at the Annual Meeting of the Michigan State Medical Society at Grand Rapids, May 25, 1904, and approved for publication by the Committee on Publication of the Council.

compound fracture is largely decided by the first dressing. The same scrupulous care must be exercised in having all surroundings as perfect for an aseptic work as though a laparotomy is to be done; therefore the operating room of a hospital is the best place for work of this kind; if this is not attainable, then some place where such conditions *are* obtainable as near the same as possible, and never in the patient's bed-room.

A general anæsthetic should *always* be given, as it is as important here as in the operation of laparotomy that the patient should be non-resisting and surrounded by the most scrupulous attention to modern surgical details and all that that implies.

The skin should be shaved over a liberal area about the wound, and then thoroughly scrubbed with warm water and green soap for a considerable area from the wound; this scrubbing should involve every bit of skin, including wound edges. If the wound and surrounding parts have been soiled by oil or grease, the application of benzine with a little carbolic acid will effectually cleanse. While the scrubbing is going on the affected area should be freely irrigated with a 1,2000 solution of corrosive sublimate. This same skin area is then washed with alcohol or ether, and finally with antiseptic solution. Not until this systematic cleansing has been carried out can a proper and thorough exploration of the damage done and a decision reached of the steps necessary to be taken.

As the compound wound may vary in size from a minute puncture to an extensive laceration, the question whether to allow it to remain as it is or to enlarge it sufficiently to admit the entrance of a finger must rest wholly upon the condi-

tions observed. Should there be little tendency to displacement of fragments, and the tissues beneath feel comparatively soft and relaxed, if the skin is pale and pliable, and little or no blood oozes from the wound, it should not be opened further. Indeed, under circumstances in which it may be fairly assumed that the small puncture was made by the pointed summit of a fragment which, having penetrated the integument, was instantly withdrawn, and but slight injuries to the soft tissues done, the simple application of a wet antiseptic dressing of a gauze pad is sufficient. The writer does not advise or advocate the sealing hermetically of a compound fracture by means of tincture of benzoin or collodion. The small amount of discharge is provided for by the gauze, the wound becomes occluded by scabs, and the fracture converted into a simple one.

On the other hand, if the wound is only minute, but is accompanied by marked displacement, or comminution of the fragments, tension of the limb, or bogginess beneath the integument; if the skin be red, turgid, and tense, or there is a constant oozing of blood from the wound, or a clot plugging it, the wound should be enlarged, or even a new one be made to give free access to the injured parts. Should the tissue beneath be found filled with blood, this must be thoroughly mopped away, and the bleeding point secured by ligation; if the bleeding comes from numerous small points, a temporary tampon may be used, to be removed in twenty-four (24) hours. Small particles of bone, which are entirely separated, and all foreign particles should be removed and lacerations of the muscles, tendons and nerves properly sutured. Masses of muscles completely detached should be removed. Large

fragments of bone, if completely separated from their vital connections, should be removed, unless of such size that their removal will prevent recovery with a useful limb. Under such circumstances they may be left with the hope that they may be free from infection, and may assist in securing a useful limb. In cases where the fractured bones are refractory, that is, do not remain in fair apposition, after all disturbing elements have been removed, then one of the methods in most general use for the purpose of securing apposition of the fragments is that of wiring them to one another. The ends of the fragments are perforated with a bone drill, and secured in close approximation by silver wire passed through the openings thus made, and twisted. In case of the separation being longitudinal, a strand of chromic gut can be passed around the parts, which will be sufficiently stable.

When a compound fracture implicates a joint which has not been so badly disorganized as to demand amputation or resection, the same general plan of treatment is applicable.

Drainage should be provided in the most dependent part, or in some cases it will be necessary to use one or more tubes, and at times a new wound for drainage exit must be made in the proper place. The wound then closed and a gauze dressing, wet with 1,2000 bichloride solution applied, and over all a copious sterile absorbent cotton pad, held snugly in place by the bandage.

We now come to the difficult question of support and immobilization, for, as John Hunter said: "The first great requisite for the restoration of injured parts is rest." For broken bones which are not held strictly at rest, keep up an irritation of the wounded soft parts, delay healing,

favor the continued outpouring of a sero-hemorrhagic exudate, and so provide a medium for the development of micro-organisms, which may lead to the loss of limb.

A very useful apparatus for compound fractures is found in the plaster of Paris dressing, with a trap-door cut over the seat of fracture, which permits access to the wound when necessary.

A safe general rule in all fractures of the long bones, that the adjacent joints at either extremity must be immobilized by inclusion in the same fixed dressing, otherwise the play of the muscles would not be held in check, and with the movement of the joints there would be a constant displacement of fragments.

The apparatus should also be made as comfortable as possible for the patient, and in case of the lower limbs, some provision should be made for swinging the limb. In case plaster of Paris has been used, a wire with hooks, incorporated in the anterior surface of splint, will prove efficient.

I have for many years been using the wire suspension splint devised by the late Dr. Hodgen, of St. Louis, with excellent success. It fulfills *all* the indications necessary in cases of compound fracture of the lower limbs.

Usually drainage can be dispensed with by the end of the first week, unless suppuration has taken place, when a longer period is necessary. An elevation of temperature may occur from the absorption of blood products, and not due to sepsis or beginning suppuration, and should not mislead the surgeon.

Occasionally the soft parts have been so severely damaged that portions of tissue adjacent to the fracture become necrotic, and then frequent and thorough

irrigation becomes necessary so that the slough may separate without causing infection and prevent bone suppuration. This detail cannot be too strongly impressed, for the cessation of suppuration and prevention of infection is essential to the union of the fragments, while its continuance delays repair and perhaps causes ultimate sacrifice of the limb.

The guiding principles, therefore, in the treatment of compound fracture are:

Thorough cleansing and rigid asepsis, drainage and careful immobilization, will enable the surgeon to save limbs which at first sight seemed hopelessly lost.

There is never an immediate necessity for amputation in which there is sufficient circulation to sustain the parts and sufficient tissue to preserve a useful limb.

Only in the case of the most severe crushing can amputation take the place of the conservative though tedious prospect of saving treatment.

DISCUSSION.

W. T. Dodge, Big Rapids: I have not been able to hear very much of the paper on account of the acoustic properties of the hall being so poor. I have formed my idea of the paper from the abstract printed in the programme. Unless the principles advocated in the abstract are modified somewhat by the text of the article, I wish to dissent somewhat from the conclusions given in the most severe cases of compound fracture.

If these conclusions and these directions as to treatment are given concerning cases of fracture of the leg, with incidental puncture of the skin and without much destruction or bruising of the soft parts, I am willing to agree with the directions, but in my personal experience in compound fractures of the limbs, which has been considerable, the number of simple cases of fracture, with incidental puncture of the skin, which can be easily converted into simple fractures, are very small, compared with the cases of extensive bruising and destruction of the soft parts. In those cases I protest against the increased traumatism being afforded to the soft parts by violent efforts to produce asepsis. It is absolutely impossible to produce complete asepsis in a limb

which has been crushed between two logs. Dirt, debris and germs, have been driven into the tissues. The tissues have lost their vitality; their blood supply has been cut off, there is going to be sloughing and further loss of tissue, and the more the traumatism already received is added to, the more sloughing there will be and the more danger there will be of finally having to amputate the leg.

I had the honor a number of years ago to read a paper upon this subject before this section, and took the position as a result of my experience that in the severe cases of compound fracture of the leg, no elaborate attempt should be made to produce asepsis, by scrubbing with the brushes and things of that sort. The attempts to produce cleanliness, should be confined to the use of a weak anti-septic solution; the parts should be irrigated and washed out as completely as possible; as much cleanliness should be resorted to as could be used without adding to the great traumatism already received; in the worst cases no immediate attempts should be made to put the bone in proper apposition, but the limbs should be placed upon a level surface, surrounded by warm antiseptic applications, rendered as straight as possible perhaps, but left for nature to produce re-action, left for the inevitable sloughing of the diseased or damaged tissues to take place, and for nature to produce a re-action in that limb, and then gradually pull it in proper position, retaining the parts there with some simple dressings that can be destroyed every time the dressing is renewed.

Our old friend, whom I never have heretofore failed to see at meetings of this section, who passed away since the last meeting of this Society, Donald McLean, used to suggest the application of folded newspapers to these cases, and a few years ago he reported here a classical case of severe compound fractures of both limbs received in a Michigan Central wreck, which he saved by this means of treatment. I may say in tribute to his memory that it was his suggestion in regard to that case that permitted me to save limbs that I would otherwise have amputated when I first saw them, and that can be saved by these conservative methods, that would certainly be lost if any further traumatism is to be added to the already severely bruised and damaged limb.

T. A. McGraw, Detroit: I differ so much from what has just been said on this subject that I cannot help expressing myself about it.

What have we in a compound fracture, as the doctor says? In the first place we have septic

elements driven in. The very fundamental thing is to get them out if you can. It is not always possible where there has been great smashing, great bruising, but the effort should be made.

The next thing is to immobilize that leg, fix it so that it cannot stir. What worse injury can you do to a broken bone than to put it just loose, lying upon something or nothing, in a fracture box or on a pillow, and let every motion of the man drive the fragments of bone into that broken and injured flesh?

Now, in St. Mary's hospital, Detroit, where we have any amount of compound fractures and very bad compound fractures, the first thing we do always is as far as possible to render the leg first of all aseptic. As for adding by that process any injury to the leg why I disclaim it altogether. You can make a leg aseptic. You can wash it out, you can inject it, make some incisions through some of the dense parts of the surrounding tissues, in order to get at it, wash out the leg thoroughly with your douches and your antiseptic solutions. You can accomplish this without any additional injury. Now, not all such legs recover. Sometimes the injury has been too severe. To leave such a leg just lying loose to wobble, I think is the worst surgery that anybody can do. That is my judgment about it.

I agree with the last speaker in one thing, among the best splints you can put on for the purpose of immobilizing the leg, is a wire splint. The wire splint I prefer is Cabots splint, and especially where the fracture is of the lower leg. If you have a fracture of the lower leg, you take a Cabot splint of wire, and bind the foot first of all snugly down on to the foot piece of that splint with adhesive plaster. You then make traction upon it, put your adhesive plaster also around the leg above and thus get both your extension and your contra extension by adhesive plaster. You have got the most comfortable splint that any man can put on to a broken leg, and especially for a fracture below the knee. We use it also there in St. Mary's hospital for fractures of the thigh, but the very essence as I understand it to-day, as I see it in my practice, the very essence of treating a badly smashed broken leg, is first of all to render it just as aseptic as possible, if necessary incise some of the tissues, let out some of the coagulated blood, wash it out, then put it in a splint where it can be kept absolutely and perfectly immobile, and if necessary swing it up.

I was called in one case in consultation, where a young girl had got her leg smashed by a horse stepping on it. Her surgeon had been treating

it for several weeks trying to overcome the compound fracture, with the plaster of Paris bandage.

We changed that, put on one of the Cabot splints, swung the leg up, and kept it perfectly immobile. The suppuration subsided and there was a perfect recovery.

E. B. Smith, Detroit: I think these two gentlemen have gone to the extreme. They have both gone too far to the right. Now, I don't believe anybody will think Dr. Dodge means that a limb which is fractured in two or three different places can be laid in bed and moved about freely; nor do I think that Dr. McGraw means that he would put the splint up so tightly that the blood could not freely circulate through the lower extremities. There is a happy medium. We all believe the parts should be taken care of antiseptically. Whatever hemorrhage there is should be controlled. If there is concealed hemorrhage it should be found. I don't think Dr. Dodge would say that it should go on, but yet he does say that we should not increase the shock, and that we should not increase the trauma any more than is necessary.

As far as keeping a fractured limb absolutely in place, I think every surgeon will say that is quite impossible. When you have given chloroform to a patient and reduced the fracture, it might be misplaced while the patient is coming out of the anæsthetic. I think we have all seen that, but where we err is in this: how we put on our splint, whatever it may be. It doesn't make any difference to me if it is only newspapers. I can get just as good results from them as I can from the wire, which I have used very often.

If we get the splint above the fracture far enough to get the muscles that are beyond their local attachment above where the fracture shows itself, that, I think, is the secret of success. -First control the hemorrhage, then put the structures in apposition, not only the bony tissue but the periosteum and muscle. Then stitch the soft structures together. In fact do the suturing as you would in laparotomy. Having done this, apply the splint padded to fit the part. Never pad the patient. As I said before place the splint so as to immobilize the muscles above the seat of fracture.

For instance, we take the ambulatory splint, and put that on a fracture of the leg and allow the patient to walk up and down. Now, those muscles are used some, and yet there is no better results from any treatment than from the ambulatory splint treatment.

C. B. Nancrede, Ann Arbor: I think in this discussion I should take a decided and unqualified stand by T. A. McGraw. I do not see any necessity to add shock or traumatism to a dangerous degree when attempting to secure asepsis, any more than he does. I do not think that there is any necessity for, nor did Dr. McGraw declare that one kind of splint was the only variety that could secure fixation; nor did he claim, nor does anyone claim that you can always secure perfect coaptation at the beginning and maintain it, but it is certainly every one's business to come as near to that as they can. There is no occasion to employ such an amount of constricting force as would interfere with the entrance of the blood into the part or its exit from that part.

This subject cannot possibly be adequately covered in two, or three, or four, or five, or ten, or twenty, or a hundred minutes, but I would just like to call the attention of the section to the fact that was observed—actually experimentally demonstrated—about forty years ago by Billroth, who found that the difference in results secured in compound (open) fractures when the ordinary removable dressings were employed and when fixed dressings were used was enormous. The ordinary dressings secured the safe amount of fixation that has been talked about without really securing fixation, which led to slight traumatisms of the tissues by the fragments and the re-infection of the tissues until most serious results often followed. How does anyone know that he is going to have all of these tremendously bad results that are claimed result from careful asepsis and reduction. How many of us have seen very bad looking compound fractures, where we have secured asepsis, where perhaps very little sepsis was to be overcome, with extensive laceration of muscles, where we have sutured nerves, have put bones in admirable position, where they have been secured with these alleged undesirable methods, where they have behaved almost as if they had been ordinarily simple fractures? How many times has that happened? Frequently. What right has anyone to assume that every case of bad looking fracture is going to behave badly, and when you have found that it has not behaved badly, how are you going to successfully reduce those fractures which you left in bad shape because you dreaded complications which never occurred? How are you now going to get the best possible reduction which was originally attainable? You cannot do it, it is too late, except by operative methods, and often, not then.

H. O. Walker, Detroit: There can be no happy medium about the treatment of fractures, simple or compound. I fully agree with the expression of McGraw and Nancrede in their treatment of fractures. Give the patient an anæsthetic, reduce and permanently dress the fracture. Plaster of Paris has served me best in the treatment of fractures of the long bones. The plastic plaster of Paris gives opportunity for accurately molding the splint to the parts while it is hardening. The point of fracture is easily gotten at for inspection by cutting plaster before dry with a sharp knife along and over a strip of binders' board (one inch wide) which has been previously introduced under before the plaster bandage is applied. If extension is required, wire with a loop at each end can be incorporated in the plaster, and to which can be attached rubber tubing for the extension. I am in favor of fastening the fractured ends together in compound fractures, with wire or what is better, large thirty day chromocized catgut. There is no reason why you should not get just as good results in compound as simple fractures, except where the soft parts have been badly crushed. Dennis reports the treatment of several hundred cases of compound fracture with a death record of one-third of one per cent., a great contrast to the results obtained before the days of antiseptics.

Some one asked: What about the ribs and the clavicle, doctor, do you treat them the same way?

Fix them any way that you choose, either with plaster of Paris or other means, so that they are immobilized. I have treated many fractures of the clavicle and ribs with plaster and the results have been good. The fixture of a broken clavicle with wire or chromocized catgut is an excellent method. I wish to emphasize the necessity of anæsthetizing the patient before adjustment and mobilizing of the fracture. It does away with pain and gives you full opportunity to do the right thing.

Wm. Fuller, Grand Rapids: The acoustic properties of this room are so bad that I have been unable to hear much of what has been said. I shall be obliged to express opinions without reference to what others have stated. I do not believe in adhering strictly to absolute immobilization in the treatment of compound fractures in the early stages. The dressing should be loosely applied so as not to interfere with the circulation and some allowance must be made for swelling. I generally use a pillow pinned around the leg from the knee down to include the foot with a strip of thin board on either side secured by a

bandage. The wound ought to be made aseptic if possible, or treated by free drainage should inflammation ensue. Either method is equally successful although a case treated by free drainage may require more care and trouble on the part of the surgeon. Cases treated in either way will recover in about the same length of time. The splint I generally use later is one that fits either leg and one of any size from the child to the adult although it is better to have a long one and a short one for children. It is simple and inexpensive. It consists of a light flat bar of iron bent so as to pass from the hip on the outer side to six inches below the foot, turned at right angles four inches across the sole and again at right angles upon the inner side of the limb to the groin. Short pieces of hoop iron are riveted across the ends in order to fix them in a plaster bandage around the pelvis and upper part of the thigh. The side irons are adjusted so as to be about four inches wider apart than the size of the leg and thigh and bent to fit the contour of the limb. Bandages are now tied across from one side to the other beneath the limb from the upper part of the thigh to the heel. The foot is supported by an adjustable foot-piece which is movable upon the lateral iron bars and by it extension is easily made. The end of the splint is fastened by a rope to the ceiling. The limb may be bandaged if necessary by using short pieces of bandage successively applied each fastened at the ends by adhesive plaster. All dressings and bandages can be easily removed or applied without disturbing the limb or hurting the patient.

Hugh McColl, Lapeer: It brings me back to thirty years ago or thereabouts, when I presented a paper on fractures of the leg before this Society, and you are going over the same ground, you are hashing over the same stuff that we hashed over then. There isn't anything new from that time to to-day. We had reports of cases that were treated by plaster of Paris. I reported at that time 123 cases of fractures of the leg treated with the plaster of Paris, without a bad result. These were all treated in the woods, in the lumber woods, where I had to dress them, take care of them in the lumber santy. We had all sorts of injuries, and we had the same thing, the same discussions and nothing new from that time to this in the way of fractures.

A. W. Hornbogen, Marquette: I can say that I heartily agree with everything that has been said in Dr. Lawbaugh's paper. I don't think—the way he placed things—that there has been much of a chance for argument. Drs. Nancrede, McGraw, Walker, and others, and I think the great majority of us all, agree that perfect asepsis and immobilization, regardless of what form of immobilization used, is the proper thing to do.

There is one point that I would wish to bring out in compound fractures, that was not brought out in the paper, that I have found to be beneficial, for instance, in severe cases of compound fracture, to decide at the time whether it is proper to amputate at once or whether you can save the leg. That point I think is a question where we are often in doubt whether we ought to try and save the leg or to amputate it. Of course there are some cases where it is so severe that you can readily see you cannot save it, of course you amputate it. Others again it is apparently difficult to arrive at a decision whether to amputate or not. A method that I have used for the last 15 or 16 years would probably assist some of the members present, in cases of compound fracture, and that is to elevate the limb and put on an Esmarch constrictor, bring the limb down to the horizontal position, remove the Esmarch, and if you get that rosy hue the chances are that you can save the limb, but if there is no reaction, amputate it.

A. I. Lawbaugh, Calumet: I don't know as I have anything more to add to what I have said before. I have been in this work for the last thirty years and I have had a great deal of experience in these injuries, employed in a mining community, where we have those fractures very frequently. When I first began practice we did not employ the rigid asepsis that we do now and our results certainly were very poor, but since we have acted on the principles which I enunciated in my paper, our results have been good, in fact we lose but very few limbs. One gentleman said it was rather difficult to put on your dressing when you had the fracture reduced, and coming out of the anæsthetic. I tell you that we put on the dressing before they come out from the anæsthetic, and I certainly simply reiterate what I said in my paper, "Rigid asepsis and immobilization."

RENAL HEMATURIA OF UNEXPLAINED ORIGIN,
CESSATION AFTER NEPHROTOMY.*

BENJAMIN R. SCHENCK,

Detroit.

Hematuria, as a symptom of renal disease, may be caused by several different affections of the kidney. It most frequently shows itself in cases of calculus and new growth, is not infrequent in tuberculosis, occurs in chronic as well as in acute nephritis and is sometimes seen in movable kidney. Besides these well recognized cases there occur others, forming an obscure group, not well defined, but little understood and usually designated by the meaningless terms "idiopathic" and "essential."

During the past one hundred years the views concerning the etiology of the cases in this group have undergone radical changes. Roughly speaking, there have been three periods in the development of our knowledge of such cases, or perhaps one might better say that there have been three epochs, in the course of which the views have been changed, without, however, throwing much light on the underlying cause.

During the first period, the older writers simply classified those cases in which the etiology was obscure as "idiopathic hematuria," referring the cause to such ill-defined and unreliable factors as "exposure to dampness," "catching cold," etc. Thus, Rayér,¹ one of the most brilliant writers in the early part of the last century, in his *Traite des maladies des reins* (1837), a work on kidney diseases in

some respects unsurpassed to-day, devotes a whole chapter to the subject, considering idiopathic hematuria not as proven but nevertheless of common occurrence.

Then, in the following epoch, marked by great activity in the field of histologic pathology, when the attempt was eagerly made to explain all symptoms by reference to pathologic changes, the so-called essential hematuria was lost sight of and it was quite generally held that bleeding from the kidney is always caused by some morbid process.

During the past twenty years, however, the ideas have been again modified, for, with the development of renal surgery, permitting the far more frequent examination of the organ presumably diseased, fairly numerous cases were found in which an exploratory nephrotomy, undertaken on account of hematuria supposedly caused by calculus or tuberculosis, proved disappointing. Nearly every surgeon has had cases presenting bleeding and perhaps pain, has exposed the kidney thought to be at fault and either by needling or by an incision, has found nothing whatever to account for the hemorrhage. The kidney has been replaced and in a certain percentage of cases the bleeding has ceased. Such experiences have led to the more or less general belief in the older idea, that renal hematuria can occur, independent of pathologic change and hence our more recent classifications again include a group, variously styled "renal hemophilia," "angio-neurotic hematuria,"

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"nephralge hematurique," "renal epis-taxis" and "hematuria arising from sound kidneys."

Two different theories have been given prominence in the discussion which has taken place on this subject. The prevailing one is that of Klemperer,² who explains the bleeding by supposing that there exists a disturbance of the vasomotors—a paralysis of the vaso-constrictors, causing a dilatation of the blood vessels and a consequent diapedesis of red blood corpuscles, hence the term angio-neurotic. Klemperer argues "we have no doubt of the occurrence of angio-neurotic œdema and why should not angio-neurotic disturbances take place in the kidney as well as in the skin?"

Senator,³ on the other hand, presupposes a local hemophilia or a hemophilia confined to one organ. I can find little in the arguments brought forward in support of this idea.

If we admit the possibility of such a cause or causes, the following case, observed by the writer in Baltimore, would seem to fall in this group.

Mrs. J. C., a woman of 46 years, first consulted me on September 23, 1902. She complained of passing large quantities of blood in the urine and of a persistent backache. The history was briefly as follows:

While never very strong or robust, she had had but few illnesses, recalling only an attack of typhoid fever 27 years previously. Although living in a district where malarial fever prevails, the possibility of her ever having become infected was very carefully excluded. She was the mother of four children and had passed through her marital and menstrual history without mishap.

In May, 1902, five months before the consultation and when in her usual health, she first noticed blood in the urine and began to have a dull backache. At first the hemorrhage was intermittent, but during the summer, blood constantly appeared, without much variation in amount. There was no history of sharp attacks of pain and nothing in the patient's account of her illness to point to the source of the hemorrhage, except the fact that the aching had perhaps been a little more severe on the left side. There was no disturbance of micturition and no sediment had been noticed in the urine. Since the onset of the trouble, loss of strength had been marked and there had been a decrease in weight of about six pounds.

On physical examination, Mrs. C. was found to be poorly nourished but the color of the mucous membranes was fairly good. The heart and lungs were normal and the pulse, which was 72 to the minute, was of good volume and tension. The abdomen was flat and natural in appearance with no bulging in the flanks. On palpation there was no resistance and no tenderness. Neither kidney could be felt, nor could tenderness be elicited in either kidney region or along the course of the ureters.

The blood examination showed 7,000 leucocytes and 65 per cent. of hemoglobin.

Cystoscopic examination. With the patient in the dorsal position, a sterile catheter was introduced into the bladder and about 50 cubic centimeters of bloody urine withdrawn. Cultures were made on agar-agar, which subsequently proved to be sterile. The knee-chest position was then assumed and a No. 10 Kelly cystoscope introduced. The bladder walls appeared slightly blood stained but otherwise

normal and the ureteral orifices seemed natural. Renal catheters were inserted and about 15 cubic centimeters of urine collected from each side, that from the left being intimately mixed with blood while that from the right was clear. Cultures from both sides proved to be sterile.

Urinary examination. *Mixed specimen.* Brownish-red; specific gravity 1022; faintly acid; no sugar; considerable albumen. Abundant granular sediment, consisting of red blood cells and a few epithelial cells; no casts.

From right kidney. Pale yellow; clear; acid; no albumen. Urea 15 grammes to the liter. Flocculent precipitate, consisting of phosphates and a few epithelial cells; no blood; no casts.

From left kidney. Brownish-red; cloudy; neutral; considerable albumen. Urea 15 grammes to the liter. Heavy granular precipitate, consisting of blood cells and epithelial cells; no casts. Several specimens were stained for tubercle bacilli, none being found.

On October 1st, 3 mmg. of tuberculin were injected. There was no reaction.

For the next four weeks the patient was kept under observation. During this time the blood was continuously passed and the backache persisted. Specimens from the urine were repeatedly stained and examined for tubercle bacilli but without result. On October 30th the patient was admitted to the Johns Hopkins Hospital, in the service of Dr. Howard Kelly.

As all our means of diagnosis were exhausted without arriving at a conclusion, an exploratory nephrotomy was decided upon and this was done by Doctor Kelly.

Operation. Before administering the anæsthetic, the left ureter was catheterized and the catheter left in place. Ether

was then given and with the patient lying over an Edebohls' bag,⁴ the kidney was exposed and brought out onto the loin. There were no adhesions and externally the kidney appeared to be perfectly normal. By means of a gravity apparatus, attached to the catheter, the pelvis of the kidney was now distended with salt solution and while the assistant controlled the hemorrhage by pressure on the pedicle, a longitudinal incision was made through the cortex in the line advocated by Broedel⁵ (just posterior to the posterior border of the kidney; the line, along which the anterior and posterior branches of the renal artery meet and through which an incision severs the fewest possible vessels.) The distention of the pelvis and calyces simplified their examination, as it kept the tissues from becoming blood stained. A most careful search failed to reveal any abnormality, either of the pelvis or parenchyma.

A liberal sized piece of the cortex was removed for microscopic study, the kidney sutured with through and through stitches of fine cat gut, replaced and firmly held in position by packing with iodoform gauze.

Convalescence. The after history was uneventful. On November 10, 1902, I again catheterized the left ureter and found that the kidney was excreting its normal portion of urine. This was still blood tinged but of a much lighter tint than before the nephrotomy.

Blood continued in the urine, in decreasing amounts, until November 27, 1902, when it completely disappeared and has not thus far returned. The patient's general health has been excellent.

Pathologic report. Microscopic examination of the tissue removed showed it to be perfectly normal.

We have then in this case, hematuria, the cause of which remains a complete mystery. There was no bacteriologic infection, for the urine was proven to be sterile on two different occasions. Calculus and tuberculosis were carefully excluded. There was no nephroptosis. There were no microscopic lesions and no microscopic alterations in the portion removed. The bleeding did not cease because of atrophy, consequent upon the operation, as may be conceived, for a subsequent catheterization showed that the kidney was excreting urine in the same amount as before the nephrotomy.

Shall we then say that it was a case of hematuria from an anatomically sound kidney and thus admit that this can occur? With the idea of ascertaining what pathologic evidence there is in favor of the existence of a true idiopathic hematuria, I have examined the literature of the past fifteen years. Fairly numerous reports of such cases occur and they may be divided into two groups—(1) those from the medical clinics and (2) those from the surgical clinics. The former are much the more numerous but as the diagnosis rests on negative findings and on cessation after treatment, without the true condition of the kidney ever having been learned, such reports furnish no scientific evidence.

In order to prove that bleeding comes from a sound kidney, it is necessary to demonstrate (1) that the hemorrhage is renal. This can be done, with certainty, only by the catheterization of the ureter. (2) The kidney must be subjected not only to exposure with palpation, needling or even longitudinal incision, but there must also be a microscopic examination of a portion of the renal tissue.

Even when this latter test is applied, it is conceivable that the part of the organ from which no specimen is taken may be diseased and the cause of the hemorrhage.

Excluding movable kidney, I have studied 19 cases reported under one or another of these headings. There are numerous others, as in the list reported by Harris,⁶ but these I have not included as there are obvious facts given, which might well account for the hemorrhage.

Most of these cases which have been cited time and again throughout the literature as proving the existence of hematuria from normal kidneys may be divided into two classes:

A. Those in which the examination has been macroscopic only.

B. Those in which the microscope revealed evidences of interstitial nephritis but have been reported as cases of idiopathic hematuria, because the author either disregarded or was ignorant of the fact that bleeding may occur in chronic nephritis.

That the macroscopic examination alone is insufficient, especially if the kidney be simply exposed and palpated, without an incision through the cortex, is, I think, evident when one considers how frequently are seen, at autopsies, kidneys, externally apparently perfectly healthy but on incision found to contain a small stone, a general interstitial inflammation, a focus of tuberculosis, or more rarely a new growth.

In the cases reported by Anderson,⁷ Broca⁸ and Passet,⁹ the kidney was simply exposed and palpated. In those of Durham,¹⁰ Abbe,¹¹ Legeau,¹² Oliver¹³ (Case II.), Guyon¹⁴, Loumeau¹⁵, Harris¹⁶, Rovsing¹⁷ and Debesaques¹⁸ the organ

was incised and carefully examined but not studied microscopically.

In the other group, microscopic sections were made and areas of interstitial nephritis of varying sizes were found. Such was the case in the reports of Sebatier¹⁹, Senator²⁰, Oliver (Case I.) Floderus²¹ and McGowan²².

After excluding these cases, there remain two unexplained, one reported by Klemperer²³ and the other by Schede²⁴.

Klemperer's case was that of a male, aged 22, who had always been healthy and had no hereditary tendencies. A year before coming under Klemperer's observation, he suffered for three months with bloody urine but this disappeared and he remained free from it for nine months. It then returned and a cystoscopic examination revealed blood coming from the left ureter. Except for the blood, the urine was normal. After the hematuria had continued for four months, nephrectomy was done. The whole kidney was carefully examined by the best authorities and pronounced absolutely normal. Five years later the bleeding had not returned.

Schede's patient was a man, aged 50, who had had hematuria for several months, producing marked anæmia and baffling all attempts at explanation. After a supra-pubic cystostomy, the ureters were catheterized, the source of the hemorrhage learned and the kidney removed. It proved to be perfectly normal.

Is our case similiar to these or was there a microscopic lesion of some unexamined portion of the kidney? The piece removed for histologic study was relatively small and might easily have been from a portion of the parenchyma which was sound. The case was more carefully studied than were most of those cited as

examples of iodopathic hematuria and nothing was found to explain the hemorrhage. Still, I would prefer to adopt the view, advocated by Israel²⁵ and Rovsing²⁶, that there was a cause—an undiscovered one—rather than to assert that it is an example of bleeding from an anatomically sound kidney.

In view of the fact that there are thus far on record but two cases which apparently prove that bleeding may take place from a kidney which is not the seat of a pathologic change, it would seem far better to me to put them aside as yet unexplained than to admit into our classification a group such as I have named.

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CHRONIC PROCTITIS AND SIGMOIDITIS.*

WM. L. DICKINSON,
Saginaw.

It is not my intention to enter into the minute anatomy of the rectum and sigmoid; but it is well for us to remember that the sigmoid is the narrowest part of the colon, that it curves in the first place upwards, and then descends vertically and to one side or the other, like the letter S, hence the name. It is held in place by a loose fold of peritoneum, the sigmoid meso-colon. The rectum is cylindrical, not sacculated like the rest of the large intestine; it is narrower at its upper part than the sigmoid flexure, gradually increases in size as it descends, and immediately above the anus presents a considerable dilation, capable of acquiring an enormous size. The mucous membrane of the colon is a grayish or pale yellow, while that of the rectum is thicker and of a darker red color. There are certain permanent folds of a semilunar shape, called Houston's valves, the usual number being three, while we may find four, or only two in some cases.

There are simple follicles and solitary glands in both rectum and sigmoid.

Chronic proctitis is a long continued inflammation of the rectal mucosa, which extends to the underlying tissues in some cases. More cases of chronic proctitis are met with in adults than in children, and it has been my experience that more women than men are afflicted with it.

Chronic proctitis, as a rule, is secondary to the acute form, which is induced by

so many exciting causes that I shall not attempt to enumerate them all, but would mention as some of them, exposure to cold or intense heat, traumatism, operations for piles, injection of internal piles with carbolic acid solutions, drastic purgatives, worms, indigestible foods, irritating discharges from the upper bowel, injury to the mucous membrane by the enema point, also the discharges from blind internal fistulæ, and wounds which refuse to heal after rectal operations.

The symptoms become somewhat modified when the acute catarrhal proctitis has passed into the chronic form; the acute pain and tenderness give place to rather a sense of weight and fulness than actual pain. The discharges are also altered; while at first it consists of a tolerably intimate mixture of blood and mucus, now it becomes more purulent, and if blood is present it exists as streaks in the pus, which have evidently arisen from ulcerations of the mucous membrane rather than from a general oozing from the inflamed surface. We find the mucous membrane appears more thickened and indurated, but the œdema is less than in the acute form.

There are two varieties of chronic proctitis—the atrophic and hypertrophic.

Atrophic is not as frequent as hypertrophic proctitis. The mucous membrane appears dry and harsh, with small fecal crusts clinging to it. The mucous membrane is not as highly colored as in hypertrophic variety, but it cracks easily when distended by the passing feces or the introduction of a proctoscope, and many small bleeding points can be seen on its surface.

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There is a dry, parchment-like condition of the skin and mucous membrane of the anal region, associated with fissures.

In hypertrophic proctitis there is always a thickening of the mucous membrane and submucosa, together with an increase in the number of mucus cells. Bacteriologists find in the muco-purulent scrapings, pus cells, leucocytes, and various bacteria, undigested particles of food, and small pieces of fæcal matter.

The cause of hypertrophic proctitis is either within or without the intestine—either following an acute attack, or the result of adhesive bands constricting the colon—and thus causing congestion. Abdominal tumors or a retroflexed or enlarged uterus pressing upon the intestine, or movable kidney, or a catarrhal inflammation of the appendix, may be the exciting cause.

The symptoms are not definite in the earlier stages of the disease, except it follows an acute inflammation, when there is a lessening of the acute symptoms, and a gradual development of the chronic. The disease gradually extends to the sigmoid flexure and colon, and the symptoms may be referred to either of these localities. The symptoms are loss of appetite, tenesmus, flatulence, and a general weakness; the tongue is flabby and coated white; constipation alternates with diarrhœa; the stools are either soft, watery and mixed with muco-pus, or they are hard, dry, round balls, covered with muco-purulent secretion. After a time when there is a greater disturbance of the digestion and constitution, the tenesmus comes on periodically, followed by the discharge of a thick, glairy, mucus mixed with pus, and at times with blood.

There is always great exhaustion following the discharge of mucus. The pa-

tient complains of a weight and discomfort in the lower rectum. The mucous membrane secretes profusely, and from the oozing through the anal opening, the parts are kept moist and macerated, thereby producing a dermatitis, and severe pruritus. The discharge is profuse enough in some cases to necessitate the wearing of a bandage at all times. The patient will have a feeling of not having had a complete bowel movement, and there is a severe burning and itching sensation. The constipation gradually increases, bowel movements only occurring after the greatest effort. Either large doses of medicine, or colonic flushings, are required to produce a bowel movement. Then there will be distention of the abdomen from the intestinal gases, griping, nausea, and vomiting. Nervous symptoms are developed and the patient becomes apprehensive and hypochondriacal.

The treatment must necessarily vary according to the cause of the inflammation, and we must not promise to cure our patients within a short time, for it is very likely to require months if not years. When the exciting cause is within the intestine, we must remove it, whether it is hardened fæcal masses, fermenting intestinal products, or other foreign substances, and for this purpose I prefer sulphate of magnesia given in tablespoonful doses in a glass of hot water, repeated every three or four hours, until there are eight or ten bowel movements. After this the colon should be flushed with normal salt solution, the patient being in the knee-chest posture. The fluid can be introduced into the colon easily by means of a Wales bougie passed through the sigmoid flexure. The injection fluid should pass into the intestine slowly, and until the bowel is fully distended, and then retained, if

possible, for fifteen minutes before it is expelled. Thereafter, with the patient in the knee-chest posture, daily injections should be made of either one drachm ichthyol, three drachms non-alcoholic hydrastis, or ten grains protargol to two quarts warm water. If upon making a proctoscopic examination, there are seen to be numerous small bleeding points on the mucous membrane, it can be mopped with a five per cent. solution of silver nitrate, or an atomizer used.

The bowels should be regulated if necessary with medicines; in cases of constipation I have been pleased with the employment of maltine and cascara taken in sufficiently large doses to produce one good bowel movement daily. The diet should be mostly nitrogenous, crusts of stale bread, or gluten bread, meats, fish, chicken, eggs, are all good, while potatoes should not be eaten. Small amounts of thoroughly cooked rice are permissible, as are all vegetables containing but little starch or sugar. Hot water, drunk half an hour before meals, has a beneficial effect. If the flatulency is great, remedies to control the fermentation must be given, as carbolic acid, salol, pancreatin, etc. When the exciting cause is without the intestine, as a floating kidney, retroflexed uterus, or a

hypersensitive appendix, one must be careful not to promise too much from the local treatments, for perhaps an operation may be necessary before the cure is accomplished. I quote Dr. Jas. P. Tuttle, who says: "It may be asked why we do not operate immediately in such cases. If it is an extremely chronic condition, and modern treatment has been tried without effect, then it would be perfectly proper to do so. But where the case is a sub-acute one, when the condition has lasted only two or three months, where no proper dietary regimen and local treatment have been carried out, one cannot say that all the therapeutic measures have been exhausted, these should be tried before any serious operation is undertaken, provided life and general health are not endangered by such delay."

In my judgment, Dr. Tuttle has stated exactly what should be done in these cases, and that the surgeon should be conservative at all times (and by conservative I do not mean a criminal neglect to operate when the case demands it) making use of the approved medical and electrical treatment of such conditions. Some of the results obtained by the employment of electricity are certainly remarkable, and this agent should be employed when feasible.

Ulcer of Stomach and Duodenum (Conclusions):

1. Gastric ulcer is rare in the Johns Hopkins Hospital as compared with cancer, the respective incidences being 1 to 225 and 1 to 56 general admissions.

2. Gastric ulcer in our series was as common in the male as in the female. In the male, the percentage of greatest frequency was between the ages of forty and fifty—a decade later than usual.

3. Ulcer was in our cases relatively more frequent in the colored race and among Germans.

4. Vomiting occurred in 85.3 per cent.; pain in 82.9 per cent., and haematemesis in 75.6 per cent.

5. Great loss of weight may be present; thus in 36 cases there was a loss of more than ten pounds, and in 9 of forty pounds or more.

6. Our statistics would indicate that hyperchlorhydria is not so constant as usually maintained; it was present in only 17.6 per cent. of our cases.

7. The blood picture is one of chloranæmia, as seen from the average count (haemoglobin, 58 per cent.; red blood corpuscles, 4,071,000; white blood corpuscles, 7,500 per c. mm.)

8. Haemorrhage was the cause of death in 8.5 per cent. of the total number of cases, and in 29.5 per cent. of the fatal cases.

9. Perforation is rare (3 cases, or 3.6 per cent. of our series). General peritonitis occurred in but one instance (1.2 per cent.).

10. Ulcus carcinomatosum is rare—at least 4.8 per cent. of our series.

11. Operation is indicated in all cases with perforation or perigastric adhesions, and in cases of copious or recurring haemorrhage, when medical means have failed after a fair trial.

12. The mortality of the series was 29.3 per cent.; in the cases, however, who received treatment, there was a mortality of only 18.8 per cent.; in those receiving medical treatment alone, 8.6 per cent. (*The American Journal of the Medical Sciences*, December, 1904. CAMPBELL P. HOWARD.)

MYELITIS COMPLICATING CANCER OF THE
BREAST, REPORT OF A CASE.*F. B. WALKER,
Detroit.

In bringing before you the subject of mammary cancer, it is not my intention to rehash the whole matter, but rather to relate an unusual case and refer briefly to some pertinent facts suggested by it.

Mrs. M., aged 43 years, consulted me first in August, 1903, complaining of general ill health and of pains in the back, especially over the region of the left shoulder blade. With the exception of two pregnancies and the usual attending disabilities, her health up to this time had been uniformly good. Inspection disclosed nothing. On palpation she exhibited slight tenderness over the upper dorsal spines and adjacent muscles. There was no fever or acceleration of pulse. Examinations of urine and blood were both negative. There was some interference with sleep. The pains complained of were not altogether constant, but unfitted her for her usual duties during the succeeding twelve weeks, after which time she thought herself well again.

December 1st, at the request of her husband, and upon the urgent advice of her former physician, whom she consulted while on a visit in November, I saw her again. At this time she showed me what she had previously concealed, a large, indurated tumor of the right breast, that had been steadily growing for two years. There was no pain in the breast and there

had been none at any time, a circumstance which together with her feelings of good health, had caused her to disregard the growing tumor. The swelling was greatest in the upper right quadrant, but involved practically the whole gland. The nipple was markedly retracted, and the overlying skin was adherent and distinctly reddened. On palpation it was evident that the axillary glands were involved. Two days later I removed the entire breast, a large area of skin, fat, both pectoral muscles and several enlarged glands in the right axilla. The pathological report was as follows: Specimen shows epithelial cells in a stroma of fibrous tissue. Many areas are undergoing necrosis. Diagnosis: Carcinoma.

The patient did well immediately succeeding the operation, and left the hospital at the end of two weeks. The operation wound healed perfectly and was to all appearances normal during the four months that it remained under my observation.

On returning home the patient was able to get about the house, up and down stairs, and assist in her duties. Within a fortnight, however, she began to have a recurrence of the pains complained of the fall before, sleepless nights, numbness in the feet and legs and, a little later, severe pains or cramps in her legs, especially at night. Her knees became unsteady, and it was difficult for her to walk. Within two months after the operation the paralytic symptoms of myelitis had well developed, not only in the legs but also in the bladder and rectum. Girdle pain was

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present. There was incontinence of urine, and on passing the catheter retention was also found to be present. Sensation was abolished in the feet and legs excepting that the legs would draw up involuntarily and unconsciously when touched, and at such times patient would complain of pains in the back and shoulders. Under massage and hydrotherapy the patient's appetite continued good, pains became less severe and sleep possible. It is not improbable, however, that the cessation of the pains was due to the progress of the disease. Nausea developed early in April, and the appetite began to fail. At about the middle of April the patient was removed to another state, where she died May 2d. The husband wrote: "It seems very plain to me now that the end came because of the continued creeping upward of the paralysis, affecting her stomach, causing the terrible sickness, and finally her lungs, causing a complete stoppage of her breathing. It particularly affected her lungs for three days, though not to cause her much suffering till the last ten minutes."

Such, in brief, is the history of a case of mammary cancer, developing for two years and complicated with what has been assumed to be compression myelitis by metastasis. On account of the removal of the patient, an autopsy was not possible, but it seems fair to suppose that the spinal disorder was secondary and that the pathologic findings would tally with those in similar cases.

In a case recently reported by Pearce and Buckley* compression myelitis, complicated a carcinoma of the breast of three years' growth in a woman of seventy years. The autopsy record reads in part as follows: "On section of vertebral column and removal of cord there was found

in middorsal region a small portion of cord about 0.5 centimeter in length, which was softened in appearance and to the touch. Above and below this portion of the cord for some distance there were strong adhesions; also the vertebræ in this region—four or six in number were softened in their bodies—a probe being thrust into them, showing distinct evidence of disease of the bones." Dr. Buckley states: "On gross examination there is to be seen on the anterior surface of the dura a mass of neoplasm about 5 mm. in thickness, extending from the tenth to the twelfth dorsal segments. The dura itself is considerably thickened. There can be seen clearly defined an ascending degeneration, limited to the postero-median columns, throughout the cervical region, and in the dorsal region as far as the eighth segment. At this level the lesion extends laterally, involving the postero-external columns, from which the gray substance cannot be differentiated with the aided eye. In the lower part of the tenth and the upper part of the eleventh dorsal segments there is an apparent diffuse myelitis. Below this there are distinct lateral lesions (descending denegeneration)." He remarks that the epithelioid cells of the dural mass correspond to the elements of the breast growth.

†Hirt has quoted a report by Gowers and Hurley of an oval myxoma pressing upon the cord and producing compression myelitis. He also refers to a case by Bruce and Mott, who, diagnosed *intra vitam* a tumor which, originating in the fifth left dorsal nerve, pressed upon the middle of the dorsal part of the spinal cord; the patient

*The Journal of the American Medical Association, Vol XLII., No. 5, p. 296.

†Text Book of Nervous Diseases.

presented the symptoms of compression myelitis and died. At the autopsy, softening with ascending and descending degeneration was found.

These cases suggest practical questions concerning the dissemination of carcinomatous disease, the early diagnosis of compression myelitis due to metastatic growths, and the treatment of the complication.

Carcinoma is known to spread in three ways, viz.: by local dissemination; that is, by the formation of discontinuous tubers, as well as by infiltration of tissues, by lymph-gland dissemination, and by general dissemination to parts of the body remote from the primary disease.

There is a strong tendency to local dissemination of mammary cancer. It spreads to the skin, the fatty tissue, the pectoral and intercostal muscles, the ribs, sternum, clavicle, pleura, lungs, pericardium, and the opposite breast. The appearance of the growth in these tissues has an important bearing upon the operative treatment of the disease, on account of the greater liability to both lymph-gland and general dissemination from the additional sources of infection.

The development of the disease in the lymphatic glands is really the grafting of cancer from the original growth. The frequency of gland dissemination and the rapidity of it vary greatly. In some instances the glands are involved almost as soon as the disease appears. In other cases years may intervene. General dissemination may occur without gland dissemination, but as a rule it may be said that the progress of the disease will depend in a measure upon the rapidity of gland invasion.

There is no rule or exact knowledge as to the period of general dissemination of

carcinoma, but the universal opinion is that this takes place late in the disease, fifteen months after gland invasion or two to three years after the first appearance of the disease. Williams[‡] quotes Gross: "Out of 100 metastases, 24 form within the first year, 3 in from 13 to 18 months, 18 in from 19 to 24 months, 27 in from 25 to 36 months, and 28 after 3 years. The liver has been found to be most frequently affected with metastases in mammary cancer. However, all other organs and tissues are subject to this process. The bones, especially the cranial bones and vertebræ are often invaded." Williams states that "metastases in the vertebræ almost invariably originate in the bodies; usually several adjacent bones are affected, and in most cases the disease is situated in the lower dorsal or upper lumbar regions." He also remarks that "dissemination in the osseous system occurs much more frequently in connection with cancer of the breast than with cancer of any other part of the body."

The same writer believes in the "embolic theory" of systemic dissemination. "This implies," he says, "that the germs whence metastases arise are proliferous cells, detached from the primary neoplasm or its derivatives, and carried off by the blood stream. These, by their continuous proliferation, directly originate the secondary growths; so that the first cancer is the parent of all that form after it." This opinion harmonizes with many observations, but it is after all only a theory. So also is that concerning the location of metastases.

Concerning the diagnosis of compression myelitis due to metastatic growths

[‡]Williams' "Twentieth Century Practice of Medicine," Vol. XVII.

Hirt puts it very satisfactory. "If a patient complains of persistent pains and stiffness in his back, if at the same time there are found sensory disturbances in the form of paræsthesias, circumscribed areas of anæsthesia, and motor disturbances in the form of slowly but steadily progressing paralysis of one or more extremities, the suspicion that a tumor of the meninges or of the cord itself exists is justifiable. The likelihood is greater if other spinal affections can be excluded, and if occasional remissions in the progress of the disease can be noted. Pearce and Buckley considered, in the case they reported, that "pain of root irritation of girdle type was the most prominent spinal symptom from the first and was persistent." Pain was a prominent symptom in the case I related, but it was not of the girdle type. There was also an apparent remission of the disease in November and December as might be the case according to Hirt, but it reappeared soon after the operation, and it would be of interest to

know whether the disease were hastened by the operative procedure.

The treatment of compression myelitis due to metastases must be surgical to be of any use, but our diagnostic marks are as yet hardly accurate enough to warrant extensive interference. This was considered in the case related, but the prospect seemed too hopeless to make the attempt. In the case of Gowers and Hurley referred to above the tumor—a myxoma—was excised after removal of the spinous processes of the third, fourth and fifth dorsal vertebræ, and the patient recovered completely. Bruce and Mott are said to have regretted not having decided upon an extirpation of the tumor in the case diagnosed by them.

With our present knowledge of carcinoma and its spread, the only rational treatment, as it seems to me, is the early and thorough removal of all suspicious tumors, being willing rather to err on the side of innocent than malignant disease.

A CASE OF RECURRENT VOMITING.*

COLLINS H. JOHNSTON,
Grand Rapids.

Cases of recurrent vomiting in children are unusual, so that it seemed to me proper to put the following case on record:

O. H., born May 30, 1897. His general health has usually been good, though he has always had more or less trouble with his digestive organs, consisting principally of coated tongue and constipation in spite of most careful regulation of his

diet, habits, etc. He has also frequently been troubled with nocturnal incontinence of urine since infancy. This has often been relieved by nerve tonics and atropia, only to return when his general health has become impaired from any cause. At such times he has also had attacks of what S. Weir Mitchell calls "habit chorea," consisting of spasmodic involuntary contractions of certain muscles of the face, giving rise to blinking, raising the eyebrows, or twitching of the mouth, which are always made worse by observation. These

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attacks are attended with more or less mental irritability and disturbance of articulation, and the irregular muscular movements have several times shown such a tendency to become general, that I have at times feared the onset of genuine St. Vitus' dance. The limitation of the spasmodic movements and the short duration of the attacks have made the differentiation not difficult.

For several years he has been subject to acute attacks of nasopharyngeal catarrh, with temporary swelling of the pharyngeal tonsil and impairment of hearing. These acute head colds finally give rise to such a degree of hypertrophy of the lymphoid tissue in the upper pharynx that while nasal obstruction was never complete, except during acute exacerbations, obstructive symptoms, such as inability to blow the nose, mouth breathing and nasal voice were frequently present.

You will have seen by this time that the boy has very decided neurotic tendencies.

Since infancy he has had occasional attacks of vomiting, lasting but a short time, and which formerly were supposed to be due to indigestion. Three years ago he had two such attacks about three months apart, lasting two or three days, and a year later, another lasting three or four days. The vomiting was but little if any relieved by treatment. The matter ejected usually consisted at first of undigested food, with no especial evidence of abnormal fermentation, and later of mucus, sometimes stained with bile. Pain, or rather, distress in the gastric region was sometimes complained of, but was not a prominent symptom. Fever was also an insignificant factor, and when present would not last longer than a day or so.

In June, 1902, he contracted whooping cough, which ran a more protracted course than usual and was attended with a good deal of vomiting. His general health did not suffer very materially, but the amount of nasal obstruction was so much greater than before that I advised the removal of his adenoids, which was done in December of that year.

In February, 1903, had a severe attack of influenza. The gastro enteric symptoms were especially severe, and the abdominal tenderness excessive; tympanites, severe vomiting, and high temperature for six or eight days were strongly suggestive of peritonitis or typhoid fever. The case was also complicated with catarrhal inflammation of the upper respiratory tract, suppurative otitis media, and inflammation of the lymph nodes situated below the ears and behind the angles of the jaws. He was greatly prostrated by this illness, and was taken to Florida as soon as the acute symptoms subsided, where he remained two months. He did not recuperate as rapidly as was hoped for, and had not quite regained his usual health on his return. He went through the summer, however, pretty well.

In September, 1903, he had an attack of vomiting, lasting three or four days, which differed from any of its predecessors in that it was accompanied with an acute infection of the nose, throat, and glands of the neck, and considerable fever. The swelling of the parotids was so great as to give rise to the appearance of mumps. The adenitis was slow in disappearing and convalescence was more protracted than usual. A month later he had another attack of vomiting of the usual kind, lasting three or four days, but with more than the usual amount of fever.

In December, 1903, occurred an attack of vomiting which nearly terminated the little fellow's life. He seemed to be in his usual health until December 12th, when he had a slight cold in the head, which, by the way, had preceded most if not all of his attacks. The illness did not appear to be in any way connected with his diet, and was unattended by any evidence of indigestion. His nose was obstructed and he snored some that night. The next day he was about the house, but was pale and listless, had no appetite, and, as usual, was constipated. No fever was present. That night he was somewhat nauseated. Next day, the 14th, he was kept in bed and all food and drink withdrawn; he vomited once, for the first time, during the night. The next day he felt so much better that a small amount of milk toast was given in the afternoon. A few hours later he began to vomit, and for ten days nausea and vomiting was almost continuous. Everything which went into the stomach was promptly ejected, and efforts at vomiting were frequently made, though nothing had been taken. The vomitus consisted of mucus, or a watery fluid, sometimes tinged with bile. I tried various combinations of subnitrate of bismuth, oxalate of cerium, cocain, hydrocyanic acid, etc., but without the slightest benefit. After withholding food altogether for two or three days, I gave him small amounts of egg water and beef peptonoids, but nothing was retained. Thirst was excessive throughout. The highest temperature reached at any time was $100 \frac{4}{5}$ degrees, which occurred but once, the usual temperature being 99 to 100 degrees per rectum. Abdominal distress was occasionally complained of, especially after severe vomiting, and to relieve this, as well as the extreme restlessness, on two

or three occasions small doses of morphia were given. It seemed to me that the nausea and vomiting were increased thereby. Towards the end of the first week all attempts at administering anything by the mouth were given up, and as he was rapidly losing flesh and strength, rectal enemata of peptonized milk, panopeptone and brandy were given every six or eight hours. Up to this time the abdomen was markedly retracted and the inactivity of the intestinal canal complete. Soon, however, in spite of the fact that antiseptic precautions were observed in giving the nutrient enemata, the abdomen became more or less distended with gas, and on the third day of their administration he had several liquid evacuations. The rectum became so irritable that I was forced to discontinue the chloral and bromide I was giving to promote sleep and allay restlessness.

The patient's condition became exceedingly alarming. The nausea and vomiting were uncontrollable and frequent. The pulse was 140, feeble and occasionally intermittent; the respiration sometimes sighing; restlessness was extreme, and he complained of considerable abdominal distress. His lips were cracked and tongue dry and heavily coated. The vomiting increased until finally the child lay almost helpless on his side, rousing up now and then to beg for water or make a feeble, but often ineffectual, attempt to vomit.

The urinary secretion became very scanty, but at no time did it contain albumen or casts. His extremities were cold, his finger-nails blue, his eyes sunken and half closed, his skin dry and cyanotic and emaciation was extreme.

During the morning of the 22d, he vomited eight times, besides having innumerable spells of retching, and at two

o'clock in the afternoon I gave him a hypodermic injection of morphia grain 1/12 atropia grain 1/450 and strychnia 1/90. He vomited but twice that afternoon, his pulse became slower and stronger, his abdominal distress less, and he rested better than at any time since the beginning of his illness. The hypodermic was repeated at 11 P. M. and at 3:30 A. M. of the 23d. I noticed that as the effect of the morphia wore off his nausea inclined to return, so I decided to keep him in a state of semi-narcotization.

The beneficial effect in this treatment was instantly very apparent. On the 23d he vomited but three times, and on the 24th but twice. During the night of the 24th, he became slightly delirious. His pulse ran up to 160 and became so weak that I increased strychnia to 1/60 of a grain every three hours and gave him three ounces of salt solution subcutaneously, with most beneficial results. He vomited for the last time at 5:30 A. M. of the 24th, and as the bowel had become so irritable that it was impossible to continue rectal alimentation, I was forced to test the stomach sooner than I wished to. At noon he was given two drachms of vichy water, which was retained. This was repeated several times that day, and the next day albumen water, one drachm every hour, was given.

The morphia was now discontinued, but strychnia was kept up for several days in doses of 1/90 to 1/60 of a grain hypodermically every three or four hours, depending on the condition of the pulse and respiration. Convalescence was slow, but uninterrupted. Beef juice was added to his dietary on the third day, egg lemonade on the fourth, junket and chicken broth on the fifth. At the end of a week he was taking milk, milk toast and cus-

tard. His bowels were moved each day until the 30th, when small doses of effervescing citrate of magnesia were used. With these his tongue, which was very badly coated throughout the attack, was rapidly cleaned. His strength returned very slowly, he began to sit up a little on January —, and was able to be removed to Florida on January —. He continued to improve in flesh and strength, but had not quite regained his usual health when on April 11th he ate some highly seasoned soup at 2 o'clock P. M. and exercised a good deal during the afternoon in the hot sun, becoming quite fatigued. About 10:30 he vomited undigested food and again at 2:30 A. M. During the next day he received nothing but water, and did not vomit again until 4 P. M. From then until 7 P. M. he vomited six or eight times. He passed a good night, but awoke early and began vomiting again at 6 o'clock. Dr. Louis, of —, began the administration of morphia hypodermically the morning of the 13th. He vomited for the last time on the 16th. The highest temperature during this attack was 99 3/5 per rectum, highest pulse 112. Water per mouth was given several times on the 17th, and egg water the following day. Convalescence was interrupted. He sat up for the first time on the 23d and started for home on the —.

The diagnosis of recurrent vomiting in its early stages may be most difficult, as it has many points in common with sub-acute gastric catarrh and tubercular meningitis. In sub-acute gastritis there is loss of appetite, nausea, little or no fever, vomiting at first of food, showing more or less evidence of abnormal fermentation, and later of mucus, and more or less abdominal discomfort. The bowels are usually constipated. But the great thirst in

recurrent vomiting, the intense prostration, the severity of the vomiting, the almost entire absence of epigastric pain, and the shorter duration of the symptoms, with perhaps a history of several former attacks, will serve to differentiate the disease from gastritis. At times recurrent vomiting bears a striking resemblance to tubercular meningitis, and only the course of the disease may show that the latter is not present.

The intense thirst which is so striking a symptom of vomiting is not found in tubercular meningitis. In the former the mind is clear, though the child may be dull and apathetic on account of intense prostration, but he is entirely conscious, in marked contrast to the increasing apathy and tendency to stupor in meningitis.

The onset of the latter disease is also more gradual and the vomiting is not so frequent or protracted.

I do not believe it is due to indigestion, or cold; nor are the attacks prevented by treatment directed to the digestive organs.

TREATMENT.

Preliminary catharsis I believe to be of some benefit, but in two or three of my patients' attacks relief of constipation seemed to have but little effect in terminating the illness. If the vomiting has begun, all food, drink, and medication by the mouth should be prohibited.

Thirst may be somewhat relieved by the administration of salt solution per rectum, and nutrient enemata may be used if the attack is prolonged. The hypodermic administration of salt solution is of great use in stimulating the heart and circulation and promoting elimination through the kidneys. As soon as possible the child

should be brought under the influence of large doses of chloral and bromide, administered per rectum, or of morphia given hypodermically. Strychnia may be added when necessary.

The symptoms of collapse with cyanosis in my case were quickly relieved by strychnia and hypodermochysis. Between attacks treatment should be directed to the child's nervous system, and every attempt be made to improve general nutrition.

DISCUSSION.

G. F. Butler, Chicago, Ill.: I was interested in Dr. Johnston's paper inasmuch as it reminds me of a case of persistent vomiting I had. I was reminded of this particular case because of the nasal pharyngeal trouble with which the child was suffering. The last case that I had of persistent vomiting was, I think, hysterical. There is a close relationship between nose and pharyngeal troubles and hysteria. Cocainization of the mucous membrane of the nose relieved the vomiting. In this case of Dr. Johnston, there has been trouble throughout with the nose. I would like to ask the doctor if anything was done in that direction towards relieving the vomiting. It occurs to me that there is something beyond mere gastric trouble; it is undoubtedly of a nervous origin.

B. R. Shurly, Detroit: As I understand it this case comes under the head of cyclic vomiting. In the last ten years I think there have been only two of those cases in Detroit that I happened to hear of; both of them were fatal. It is exceedingly rare and interesting in children.

There are four prominent points which seem to appear in all three of these cases. First, they occur in families well to do. Second, there is a marked neurotic type in the family history. Third, there is the presence of adenoids with a marked enlargement of the lymphatic glands, and fourth, attending that which is so frequent in conditions where we have a denoid involvement we have a neurosis. It seems to me these four types of conditions go hand in hand and are very important in the consideration of the etiology of this condition. The two cases we have had in Detroit were fatal under the most careful treatment. The fact that this case responded to morphia shows evidently a marked neurotic element in it, and the fact that there was nerve irritation.

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Editorial

TREATMENT OF ACUTE LOBAR PNEUMONIA.

To the practitioner of medicine, pneumonia is of the greatest interest because of its frequency, fatality and lack of a specific in its treatment. There appears to be a great variety of methods in vogue in treating acute lobar pneumonia. Beverly Robinson,* of New York City, gives his views as to the treatment in a recent medical publication, the main points of which are given below.

With the beginning of the disease (chill, fever, pain in side, cough and expectoration), he advocates strongly the use of beechwood creosote, vaporized more or less continually in the patient's room. It acts as a moderate antiseptic locally, as an anti-catarrhal agent for the bronchial mucous membrane and to a certain degree it prevents contagion by the nurses in attendance. It should not be used in nephritic cases and its use should be stopped when the patient's kidneys show signs of becoming disordered.

Whether it is advisable to use opium or morphine in lobar pneumonia is a question discussed quite generally by the profession. Doctor Robinson finds no objection to the moderate use of morphine hypodermically in the beginning of the

disease to allay the pain in the side if it is intense. If moderate, local applications are better. Later in the disease no morphine as a rule should be given as it tends to lock up the secretions which are already too much interfered with by the disease itself.

Large doses of digitalis at any period of the disease are prejudicial to the patient. In the milder forms of the disease, they are not indicated. In the graver forms and in middle adult life, arterial changes counterindicate its use, not to speak of possibly granular degeneration of cardiac muscular fibre. Minute continuous doses of digitalis, given before there are any symptoms of heart failure may prove useful in warding it off. When heart failure shows itself it should not be discontinued but protected as to its action upon peripheral arteries, with a moderate amount of nitroglycerin (1-200 or 1-100 grain every two or three hours). So soon as there is evidence of pronounced cardiac weakness, good digitalin and strychnine should be given hypodermically. In regard to strychnine, while the doctor values it highly in the treatment of pneumonia, he feels its use has often been pushed to an extreme degree, causing the insomnia and delirium to become aggravated.

Coca given by mouth or hypodermically has been of great service in cases where hope had almost been given up. The reason that this agent does not more frequently respond to our wishes is because the preparation employed is relatively inert. It is wise to give black coffee frequently by mouth or rectum in advanced cases of pneumonia whenever coca is unreliable.

In many instances, oxygen, which has been given frequently from the time pneumonia shows marked gravity, has proven

*The American Journal of the Medical Sciences, December, 1904.

extremely beneficial. To be of real value, it must be given freely and not begun when the patient is almost moribund.

Except in the beginning of a pneumonia and in specially rugged or full-blooded patients, venesection as a rule is not desirable. However, in the first two or three days of the attack of acute lobar pneumonia where general oedema of the relatively healthy lung occurs, life can be saved by a prompt and sufficient venesection (eight to twelve ounces). Later in the disease it is not beneficial except when the right heart is distended and unable to cope with its fluid contents, despite all judicious cardiac stimulation and except when the patient is suffering unquestionably and mainly from profound general toxæmia.

Acute lobar pneumonia is one disease at least in which the use of alcohol is almost imperative at times if we wish to tide the patient over an imminent crisis. The frequency and amounts given at such times are governed almost solely by the urgency of the case and the apparent benefit derived.

Cold bath, cold pack or cold applications locally, the doctor does not believe in but prefers the use of tepid or warm water for bathing purposes to which a moderate proportion of alcohol has been added, believing the nervous shock caused by the toxin is better allayed with moderate heat than with cold. He does not believe in the cold tar products as antipyretics. The bowels should be kept open.

In the treatment of no disease are frequently repeated visits from the physician, supported from the beginning with good nursing, more important than in that of pneumonia. Attention to these will be the means of saving many lives which otherwise would surely be lost.

MEDICAL ORGANIZATION.

William B. Ulrich,* President of Medical Society of the State of Pennsylvania, very nicely states some of the advantages of medical organization to the physician and to the general public:

1. *Increased Harmony and Mutual Regard Among Medical Practitioners.*—Our honored ex-secretary, William B. Atkinson, in his sketch of the "History of the Medical Society of the State of Pennsylvania," in commenting upon the state of the profession before this society was organized, observed that, even as late as 1850, there was a great objection on the part of many of the more prominent physicians to hold allegiance to any form of medical organization; especially was this the case in the large cities and towns. Living in the light of the valuable results obtained from many societies of the present day, he says it is difficult to realize the heart-burnings and jealousies then prevailing. One of the beneficent results of the Civil War was that the constant association of physicians in the army, in camp, and in hospital, led, after their return to their homes, to a more fraternal feeling. This gave an impetus to the formation of medical organizations with both social and scientific features, which they have never lost, and which has culminated in a united medical association, bringing physicians, in all parts of this country, into fraternal relationship with each other. The contrast between the present state of affairs, when the leaders of professional thought are among the most faithful in their attendance at our meetings, and that of which Dr. Atkinson wrote, is very great indeed. It is

**American Medicine*, October 29, 1904.

attributable in my mind solely to the influence of medical organization upon the profession.

2. *Advancement of Medical Practice and Mutual Improvement.*—I think that it will be admitted without argument that discussion on medical subjects and the preparation and reading of papers have a decided educational influence. The meetings of the district and county medical societies, particularly, afford a sort of post-graduate course of medical study, of which every physician should avail himself; it is an aid in keeping up with the progress of medicine, which no one can afford to ignore, if he wishes to retain his standing in the profession.

3. *Elevation of the Standards of Medical Education.*—The records of this society show the zeal and the faithfulness with which this great object has been pursued. It has persistently insisted upon certain educational qualifications for students, to be determined by an examination prior to matriculation, until such are now required by all of our medical colleges. It has advocated more thorough teaching, and our colleges have lengthened their course from four months to seven, and from two terms' attendance to four, with the prospect held out for an additional year. Furthermore, chiefly through the influence and labors of this society, a State Board of Medical Examiners has been created in order to ascertain the fitness of recent medical graduates to be licensed to practise medicine. The results of these reforms are now evident to all the world. Medical matriculants are more highly educated, and the qualifications of those graduating from the colleges are much higher. Socially, a marked change

has been observed in the character of the graduates, even within the last few years.

4. *Increased Influence of Physicians in the Community.*—The opportunity that organizations offer for the united profession to be heard on great questions of sanitation and to influence public opinion is so obvious that no argument is needed on this subject.

5. *Improvement in Medical Literature.*—I need only point to the transactions of the American Medical Association to demonstrate that by medical organization we have succeeded in creating a weekly medical periodical which is larger in size and better in quality than any of its competitors throughout the world, not even excepting its older contemporary the *Journal of the British Medical Association*, which we mention with the highest respect and with regard bred of long and valued acquaintance.

The foregoing are a few of the advantages that have accrued to the medical profession; let us inquire if any advantages have resulted to the public from medical organization:

1. The public health has been greatly advanced by medical organizations, through the securing of medical legislation, as already mentioned, establishing Boards of Health, Medical Examining Boards, health instruction in schools, etc.

2. The advancement of medical science by medical organization has led to the more intelligent and scientific control of disease and the successful treatment of conditions that were formerly beyond the ability of the profession to relieve. The present successful treatment of pulmonary tuberculosis at White Haven, Pa., is a striking example of the truth of my statement. The exemption of Cuban cities

from yellow fever while under American control, is another convincing fact.

3. The protection of the sick, in a large degree at least, from the sad effects of ignorant and unskilled treatment, has been one of the objects attained by medical organization. Through the efforts of medical societies, nearly all of our states and territories have passed laws which forbid persons to offer their services as physicians unless they have duly obtained a license to practice medicine, after the regular college course of study. This has resulted in direct sanitary and pecuniary benefit to the community.

4. Dissemination of medical and physiologic information, by medical organizations, among the people at large, has been of immense service in the past, and is capable of rendering even greater service. Not only has this influence been manifested in obtaining legislation for higher standards of medical education, and for the protection of the public health, but it has also been repeatedly shown in advocating and accomplishing improvements in the water-supply, the supervision of dairies, the prevention of adulteration of food and drugs, and in many other ways. In the presence of threatened epidemics it has taught the public the lessons of sanitation, and also how to keep the babies well during the heated term; has urged the performance of vaccination upon the public and, in the effort to stamp out smallpox, even consenting to the free performance of vaccination in our large cities, to all persons applying for it. Through the influence of medical organizations, laboratories belonging to the department of public health have been established, where blood-examinations in cases of suspected typhoid fever are now made, and cultures

from supposed diphtheria cases are tested, entirely without charge. Diphtheria anti-toxin is also gratuitously supplied and physicians sent to administer it, when requested in our large cities. Certainly, the organized medical profession has most potently and unselfishly made its influence felt in creating a proper sentiment in matters relating to the public health, and the prevention of disease. Through its efforts and co-operation, Boards of Health have been constituted and are now engaged in protecting the people from committing sanitary sins, in preventing epidemics, and in collecting and recording vital statistics. The benefits from such work cannot be estimated, but they are evident to all.

It occurs to me that if our medical societies were occasionally to arrange for open or public meetings, such as the health conferences which have been held under the auspices of our State Board of Health, it would not only instruct and interest the public in very important questions, but it might lead to better understanding and more hearty co-operation with the profession in matters affecting the general health. It was my privilege recently to attend an open meeting of the Bucks County Medical Society—the majority of the audience being ladies, many of them mothers. Dr. John B. Roberts, of Philadelphia, delivered an extempore lecture on tuberculosis, in such language as made it thoroughly comprehensive to the lay mind; forcibly setting forth the danger of neglecting physical laws, laws just as divine in their origin as those which govern our divine nature and the observance of which should be just as sacred. The profit of such meetings cannot be questioned. I would urge that every county society hold similar meetings, three or four times each year. Medical knowledge thus dissimin-

ated would be immeasurably beneficial to the public and creditable to our profession. There is a great deal of latent talent in our local societies which would be brought forth with great profit to the individual as well as to the public in meetings of this kind.

5. The public is greatly benefited by medical organizations in a very direct and personal way, by the fact that the physicians, who regularly attend such medical societies, are not only *ipse-facto*, of good standing in the profession, but are well posted. By their work in reading papers and discussing cases they are incited to take greater interest in their patients, and are required to keep up their medical studies. I have already shown that the individual physician derives great advantage from such association with his brother physicians, and is made a better doctor thereby; I now claim that it is a fair deduction, that being a better physician his patients must necessarily derive a reflected advantage from the medical organizations, of which he forms an integral part.

FEWER MEDICAL STUDENTS.

Twenty years ago New York City had one thousand nine hundred and seventy-nine students; the last report of the Commissioner of Education gives it eighteen hundred. Twenty years ago Albany, Buffalo and Syracuse had one hundred and six medical students; the last report gave then five hundred and seventy-four.

From the standpoint of the profession New York City is to be commended above the outside cities of New York. The great need of the profession is fewer medical students—fewer additions to its ranks. Whatever causes operate toward this end

are to be encouraged; whatever against it, discouraged.

It is reported that the recent entrance examinations have reduced the number of students entering the Michigan Medical Colleges, but we have no exact data. We hope for the bearing it has upon the entire Michigan profession, this reduction may be large and increase each year till the normal proportion of doctors and patients is reached.

It is a sad sight that presents when doctors, engage in abortion, are unable to meet their obligations, resort to all sorts of makeshifts, as under bidding, buying business as insurance examiners, as surgeons, ophthalmologists, selling business as general practitioner to groups of specialists, violating trusts committed to them.

It is worse when the facts show that too many doctors occupy a given area, to render possible a fair living income to all. Some time ago while visiting a beautiful interior town, the leading physician of that place said that his income was distressingly meagre; I then quoted him the fact that a predecessor in the same field had accumulated a fine fortune for the place. He replied that now there were practically no fevers, or other epidemic diseases and so the actual amount of medical service called for was greatly diminished. This is only one source of reduced income, but it covers the entire rural districts. The needs of twenty-five years ago are less than now. Clubs, accident insurance companies, fraternal orders, hospitals, dispensaries, are other agents as the general increase of practical sanitation, has restricted the field of medical practice to a degree little realized. It is but rational that the supply of doctors be also restricted. We have

an increase of the entrance examination, as well as a stiffer examination to secure a state license to practice. The common sense application of these with a gradual increase in their severity, should in time bring about an equilibrium of doctors to patients.

DEATH OF JOSEPH HUME TAYLOR.

Joseph Hume Taylor was born at Almont, Michigan, April 13, 1853. He graduated from the Almont High School and the medical department of the University of Michigan in 1876. After graduating from the latter institution he located in Lapeer. In 1883 he removed to Columbia, North Dakota. In 1890 Dr. Taylor moved back again to Lapeer. In 1884 he was married to Miss V. Rood of Lapeer. During the past four years the doctor has been in poor health and died November 24, 1904, of general tuberculosis, aged 53 years. He leaves a wife and three boys. Doctor Taylor was a member of the Lapeer County Medical Society, the Michigan State Medical Society and the Northeastern Medical Society.

H. E. RANDALL.

THE DEATH OF ADALIN GASSER.

The grim visaged reaper of life has cut a wide swath in the ranks of our profession and particularly in the Houghton County Medical Society during the past two years. We, of the medical profession, are oft times so taken up with the various duties which devolve upon us that we fail to justly appreciate the true significance of existence.

"The boast of heraldry, the pomp of power,
And all that beauty, all that wealth e'er gave
Await, alike, the inevitable hour;
The paths of glory lead but to the grave."

It is not until we are called upon to stand by the open grave of some very dear friend, or brother practitioner, that we stop for the moment to ask ourselves, who are we, where are we, and what is our destiny? We are so busied with the unraveling of protoplasmic and cellular life—with our endeavors to solve and rectify the manifold pathological processes of human existence, that we fail to see in the dissolution we call death anything more than the cessation of that phenomenon we call life.

We are like bubbles upon the crested wave of the great ocean, occupying the highest place of all animated beings but for the moment, then again sinking back into the darkness of forgetfulness. Ages upon ages, cycle upon cycle, has the process with never ceasing regularity been manifesting itself.

From out the bereaved heart of humanity to-day goes the same cry of inquiry as went out centuries ago, "If a man dies shall he live again?" And now as then, philosophy and unaided reason gives us back again but the echo of that despairing cry. And yet, hope forever springs in the human heart. We have been following our dead for countless ages to the verge, as it were, of a vast ocean, upon which the darkness and blackness of night seem to have descended. The great heart of humanity calls in its sorrow and bereavement across the broad expanse of this lightness night, and listens for the whisperings of assurance and certainty only to be conscious of the beatings of its

own heart, and to hear the sound of nothingness. And yet though

"Blindfolded and alone we stand,
With unknown thresholds on each hand;
The darkness deepens as we grope,
Afraid to fear, afraid to hope:

Yet this one thing we learn to know
Each day more surely as we go,
That doors are opened, ways are made,
Burdens are lifted, or are laid,
By some great law, unseen and still,
Unfathomed purpose to fulfill,
Not as I will."

And to humanity this Great Law has come to be looked upon and looked up to as Israel's Jehovah and Christianity's loving Father.

One month ago to-night there met with us one apparently in the full measure of health and strength. Among the happiest none was happier than he. He took part in the questions that were of great interest to this society in a manner that was at once humorous and well put,—for none enjoyed our meetings more than he. To-night he is numbered among the clods of the valley, for on the evening of October 10th the finger of death touched his lips and he slept. Dr. A. Gasser came to Houghton County from Milwaukee about fourteen years ago. He at once won the hearts of those who were brought in close contact with him. His kindly disposition to all brother practitioners, his high ethical ideas have continued unabated during those years.

Dr. Gasser was ill just four days and confined to his home but three. On the day of his death he seemed some better, but toward the beginning of evening he was seized with a fit of vomiting, during which death came to him.

Adalin Gasser was born in Switzerland in 1859 and was, therefore, at the time of

his death forty-five years of age. His father was a large leather merchant in his native country and had amassed quite a fortune. The doctor received the rudiments of his education in his native town, spending about seven years in the Latin School of Solothurn, ordinarily termed the gymnasium. Selecting the profession of medicine for his future life work, he entered the University of Berne in 1881. The second year of his professional study was spent in the University of Strassburg. He next returned to his own University of Berne. The following summer he entered the University of Munich, where he spent three years. He then spent one year at the famous University of Heidelberg, graduating the following year from the University of Erlanger. Among his instructors may be mentioned Prof. Strümpell in internal medicine; Prof. Von Winkle in gynecology and obstetrics, and Prof. Von Bergmann in surgery. Such a trio could not but make a powerful and lasting impression upon the young man's life; and to those of us who knew him intimately, the influence of their teaching was ever manifest. They gave the young student high ideals and lofty conceptions of the physician and his work. To him every practitioner should be a colleague, and were he not, then that alone was sufficient to take him from the ranks of a learned profession and ever afterward be looked upon as one beneath, and in no true sense related to the noble profession of the healing art. To his mind none but high-minded gentlemen should ever enter upon the study of medicine. To him the true physician was and must ever be above the mere commercial aspect of his calling; he must be a leader in thought and action,

and a dominating factor in the world's progress. Nor was this at all strange when we consider that Switzerland, with its centuries of liberty and freedom, was his birthplace and the training ground of his young manhood. It was this that made him love the country of his adoption with such tenacity of purpose and will. He believed in freedom for all mankind. Liberty was to him no mere idle word, but rather one teaming with life and throbbing with the impulse of purpose and activity. He believed heartily and with all his soul that,

"New occasions teach new duties;
Time makes ancient good uncouth;
They must upward still and onward
Who would keep abreast of Truth.
Lo! before us gleam her camp-fires!
We ourselves must Pilgrims be.

Launch our Mayflower, and steer boldly
Through the desperate wintry sea,
Nor attempt the Future's portal
With the Past's blood-rusted key."

When President McKinley called for 100,000 volunteers in our war with Spain, brought on largely by the inhuman treatment of Cuba, Dr. Gasser telegraphed Gen. Alger offering his services to the United States in his professional capacity, whenever and wherever the Secretary of War should direct. Blood will assert itself, and this Swiss-American, this American from the land of William Tell, rose to strike a blow for liberty and freedom in the cause of bleeding Cuba. True to the traditions of his country he believed in the ultimate triumph of right and justice.

"Truth forever on the scaffold,
Wrong forever on the throne;
Yet that scaffold sways the future,
And behind the dim unknown
Standeth God, within the shadow,
Keeping watch above his own."

At heart, he was one of the most American Americans I have ever known. He believed in our past, he took an active part in our present, and had a firm belief in our future. America to him was destined to be in all the coming years of the world's history, a potent factor for good, teaching the rights and equality of man before the law. America was to be the sturdy young giant who would strike down, and to its death, the usurpations and governmental fallacies of Europe. Right to rule meant to him the right to serve.

As a physician he was well educated and prepared for his work. He enjoyed the confidence of a large practice. His heart was ever open to the call of the poor and needy, and many an orphan and widow will long miss the kind ministering hand of a noble nature that among us was known as Dr. Gasser.

"His sun went down while it was yet day."

"But the night shall be filled with music,
And the cares, that infest the day,
Shall fold their tents like the Arabs
And as silently steal away."

He has gone from us; we shall miss him; we have missed him.

"True it is that Death's face seems stern and cold,
When he is sent to summon those we love,
But all God's angels come to us disguised;

"Sorrow and sickness, poverty and death,
One after another lift their frowning masks,
And we behold the seraph's face beneath,
All radiant with the glory and the calm
Of having looked upon the front of God.

"Life is the jailer, Death the angel sent
To draw the unwilling bolts and set us free.
He flings not open the ivory gate of Rest,—
Only the fallen spirit knocks at that—
But to benignant regions beckons us,
To destinies of more rewarded toil.

"Tis hard at first to see it all aright:

In vain Faith blows her trump to summon back
Her scattered troop: yet through the clouded
glass

Of our own bitter tears, we learn to look
Undazzled on the kindness of God's face;
Earth is too dark, and Heaven alone shines
through."

And so on Oct. 14th as the setting sun
was kissing the hill tops and the beautiful
lake at their feet was bathed in the shade
of approaching night, we laid our friend
and brother to rest. His work was done.
His course was run. The rustle of the
autumn leaves around us, the day, the
hour, the occasion, all reminded us of the
brevity of life, and the vastness of eternity.
And at twilight, as the stars came out one
by one, we thought of him, not as among
us, but as somewhere far out in clear blue
among those silent watchers of the night.

"The loath gate swings with rusty creak;
Once parting there, we played at pain;
There came a parting, when the weak
And fading lips essayed to speak
Vainly, "*Auf Wiedersehen*."

Somewhere is comfort, somewhere faith
Though thou in outer dark remain;
One sweet sad voice ennoble death,
And still for eighteen centuries saith
Softly, "*Auf Wiedersehen*."

"If earth another grave must bear,
Yet Heaven hath won a sweeter strain,
And something whispers my despair,
That from an orient chamber there
Floats down, "*Auf Wiedersehen*."

EDWARD T. ABRAMS.

THE JOURNAL.

The third volume of this JOURNAL
closed with the last issue. It has been the
endeavor of the editors during the past
year to make THE JOURNAL as well bal-
anced a one as possible. Beginning with
the January, 1904, number, we installed

the department of the Progress of Medical
Science and assigned the various divi-
sions of it to men we felt sure would en-
sure its success. It has been well received
and in the limited space we can give to it,
has covered, in a satisfactory way, some
of the best work which has appeared in
the journals published in this country and
abroad.

Until April, 1904, very little, if any-
thing, had been done, in a systematic way,
concerning the reviewing of the new medi-
cal books. It was an extremely difficult
thing to develop the Book Review De-
partment. Its success and progress has
been entirely due to the man, under whose
direction it has been developed. This de-
partment is really of great interest and
usefulness to the practitioner if the books
are conscientiously reviewed, and this has
been the earnest endeavor of this JOUR-
NAL.

During the past year, the editors have
tried to place the County Society News in
such a shape that it could be brief, yet to
the point. We stopped publishing mere
programs of meetings and the like, giving
our readers only accounts of annual meet-
ings, resolutions introduced and abstracts
of papers and discussions. We wish here
to acknowledge our thanks to the secre-
taries of the various county societies who
have helped us in this matter. Many of
the papers they have abstracted for us.
To those secretaries who have, as yet,
failed us, we earnestly urge them to aid
us during the coming year either by send-
ing us the abstracts of papers read before
their county societies or else by giving us
the chance to abstract these papers our-
selves.

As this JOURNAL is owned and sup-
ported by the profession of the state, we

feel that its editorial columns should be open to all members of the State Society who cares to express themselves in these columns over their own signature, and we trust they will avail themselves of the opportunity.

Volume III. contains sixty-four original articles, some of which have been illustrated. The papers for the most part were read either before the state or county societies. The August number contains a symposium on infant feeding which is one of the best short resumés on the subject.

We trust the editors will have the same kindly support during the coming year as has been granted them in the past.

County Society News.

CALHOUN COUNTY.

The Calhoun County Medical Society held its annual meeting and banquet in Battle Creek on the afternoon and evening of December 6, 1904. The attendance of members and their friends was so large as to severely tax the capacity of the City Hall, where the meeting was held.

The officers elected for the coming year are: President, A. J. Abbott, of Albion, succeeding J. C. Brown, of Battle Creek, who by constitutional provision passes to the Board of Directors, where he will serve for five years; Vice-President, E. W. Lamoreaux, of Battle Creek, succeeding A. J. Abbott, the newly elected President; Secretary-Treasurer, C. G. Vary, of Battle Creek, succeeding W. H. Haughey, who has served in that capacity for nine years and had resigned earlier in the session, at the time of making the Secretary's report.

The following new members were received: W. S. Shipp, R. D. Sleight, A. B. Lull, C. S. Gorsline, D. G. Castell, J. W. Gething, A. J. Read, Geo. A. Robertson, Jr.

Victor C. Vaughan, of Ann Arbor, and Fleming Carrow, of Detroit, were guests of honor, Dr. Vaughan giving, during the afternoon session, an exhaustive explanation of some recent investigations in his laboratory, and Dr. Carrow

responding happily to a toast at the evening banquet. Other papers were read and received much discussion.

The names of three members who had died during the year were mentioned in appropriate type on the back leaf of the program, and due respect to their work in the society was given by a well-worded report under the head of Necrology, by J. H. Reed, of Battle Creek.

A motion was passed unanimously, concurring in the resolution adopted by the Wayne County Medical Society, protesting against the recent action of the Board of Regents in ordering free treatment to rich and poor alike in the University Clinics. Chair appointed Geo. C. Hafford, of Albion, as representative from Calhoun County Medical Society to meet with the Wayne County Medical Society, in accordance with the above resolution.

It was decided on invitation of R. M. Gubbins that the next meeting of the society be held in Ceresco, after which adjournment was taken to a reception between the hours of six and seven to the society and its friends at the home of Dr. and Mrs. Haughey, 24 Poplar street. More than a hundred participated in this reception, thus passing away the intervening time before the banquet in the evening, which occurred at the Clifton House at 8 p. m., the parlors and dining halls of which were filled to overflowing with a happy throng of doctors and their friends, who enjoyed the occasion to its fullest measure.

W. H. HAUGHEY, Sec'y.

EMMET COUNTY.

At a meeting of the Emmet County Society, held on November 8th, it was moved and supported that the Secretary write the Board of Regents of the University of Michigan to the effect that the members of the Emmet County Medical Society are not in favor of free medical attendance to all classes. And it was also moved and supported that the Secretary be instructed to write the representative and senator of this district that the Emmet County Medical Society favors legislation for the registration of nurses.

G. E. REYCRAFT, Sec'y.

HOUGHTON COUNTY.

The annual meeting of the Houghton County Medical Society was held September 5, 1904, at Calumet. The following officers were elected:

President, A. B. Simonson, of Calumet; Vice-President, N. S. McDonald, of Hancock; Secretary-Treasurer, W. T. S. Gregg, of Calumet.
W. T. S. GREGG, Sec'y.

INGHAM COUNTY.

At the annual meeting of the Ingham County Medical Society the following officers were elected:

President—J. F. Campbell, Lansing.
Vice-President—J. W. Hagadorn, Lansing.
Secretary-Treasurer—L. Anna Ballard, Lansing.
L. ANNA BALLARD, Sec'y.

JACKSON COUNTY.

Jackson County Medical Society held its fourth annual meeting at Jackson, December 1, 1904. The meeting was called to order by President D. E. Robinson. Theodore A. McGraw, of Detroit, conducted a surgical clinic. The doctor performed two operations, one amputation and an operation in a case of compound dislocation of ulna.

Several cases were demonstrated to the clinic later.

The following officers were elected for 1905:

President—C. H. Lewis, Jackson.
Vice-President—E. N. Palmer, Brooklyn.
Secretary—R. G. Hendrick, Jackson.
Treasurer—F. W. Rogers, Jackson.
Delegate—D. E. Robinson, Jackson.
Alternate—C. D. Munro, Jackson.

After the election Dr. Robinson gave the following address:

Abstract—

Another year of our organization has gone and it is time to take a retrospect, also to look to and provide for the future. I think the year has been marked by harmony and good feeling in the society and that we stand together today with a stronger feeling of unity and determination to support the organization than ever before because of the personal benefit each member derives therefrom in knowledge gained, and the closer friendships formed.

I do not think this increased interest is sporadic in character or to be short lived but rather that it will grow and become stronger among us until our calling, because of our unity and determined efforts, shall come to occupy that place of respect and influence in the community which its high aims and purity of pur-

pose entitle it to attain, and it should be our effort by every means at our command to encourage and hasten this upbuilding and uplifting of the standard of our calling. Any organization is strong only as the units of its composition are strong, and it therefore devolves on every person in the profession to feel that he has an interest and part in the work. We aim to point out some of the mistakes of the past, particularly of the older physicians and warn the younger members against falling into the same errors. We hope also to offer some advice for your consideration and perhaps approval. There are in our city about seventy physicians of all schools. Of course quite a number of these are not in active practice. Probably about fifty-six are giving their time and energies exclusively to professional work of whom fully one-half are practicing some exclusive "pathy" or "ism," or are too unprofessional in their conduct to receive recognition by this society, leading about twenty-eight workers who are striving to uphold scientific rational medicine. So long as the people are seeking after false gods or the follies and superstitions of feudal ages, I suppose that on the principle of demand and supply unscrupulous persons will meet their wants and incidentally relieve them of their hard-earned dollars. These are the parties from whom the public should be protected, and no body of men can do more than an intelligent, persevering and united medical profession to show the true character of these various isms. "By their fruits ye shall know them," is as true now as when first spoken, and all those fads will meet the fate of the historic fig tree. In this work of educating the public we each have something to do; we must strive to make our works so much better and truer that all may see the real aim of those who seek to humbug them by pandering to their superstitions and love of the mysterious.

Fortunate indeed is the man who was early under the tutelage of a thorough and methodical instructor. Method in, as well as method of investigation, is so much more thoroughly taught today in our schools that the young man starts today much better qualified than formerly. No man can ever expect to succeed without system in his work, investigating all that may in any way pertain to the case under consideration and always as nearly as possible following the same order in the investigation. Do not neglect the urine or the heart or lungs or any other organ simply because the patient has not called attention to them, or the symptoms do not indicate trouble there. If we wait until symptoms be-

come so plain as not to be mistaken we will be unfaithful to the trust reposed in us and a valuable life may pay the forfeit. A very common error is to be content when we have found some one organ or system diseased while the malady which is really destroying our patient may be overlooked and allowed to go on until irreparable damage is done, simply because our investigation was not thorough and complete. It may be impossible to determine the true character of the malady at a single examination, and we must not be ashamed to own up to the fact and ask for a second or third investigation if need be. Life's processes are intricate and many of them but poorly understood or not understood at all, and it will be impossible to at all times arrive at a satisfying diagnosis, but every failure to make such diagnosis is a reproach to us until we have exhausted all means at our command to fathom the trouble. The general practitioner is too often careless and slipshod in his methods, and this we cannot afford for it leaves us open to criticism, and of that we receive an abundance without special invitation. Next to a careful investigation a faithful record of our findings is essential in following our cases, and valuable and material points may be added at subsequent examinations to confirm or correct our previous conclusions. It is surprising how much can be learned from these records, many apparently minor points will be lost without the records, but when retained in proper order they may prove the key to the whole problem. Again, record making begets system and thoroughness in our work, which are factors so often lacking with most of us, and an intelligent patient can generally tell whether we are fishing for clues or systematically investigating the case and the value of your services will be estimated very much by their opinion of the thoroughness with which the work is done. I purposely avoid details for each must fit his methods to his surroundings and to his line of work, remembering that the more completely a subject is mastered the greater pleasure there will be in that study and the recognition by others of our efforts in that work. There is no place in this busy world for a lazy man, and least of all, in medicine, which is making more rapid advancement today and adding more each year to its store of knowledge than any other branch of science. It is also doing more for the world's welfare and happiness than any other calling. It has added six years to the "span of life" within the last quarter of a century, and we can challenge the world to show us anything comparable to such

achievements, and we must, each of us, proud of our membership in the profession, do what little we can to advance the status of our calling to secure for it by the public, and before the law, such recognition as its merits deserve.

A banquet was served at 8 o'clock.

R. GRACE HENDRICK, Sec'y.

ST. JOSEPH COUNTY.

The regular meeting of the St. Joseph County Medical Society was held at Constantine, September 13, 1904.

W. C. Cameron, of White Pigeon, read a paper on "Local Treatment of Abscesses and Phlegmonous Conditions."

Abstract—

The old truism, "An ounce of prevention is worth a pound of cure," holds good in the treatment of abscesses and phlegmonous conditions, as does also the aphorism that "Pus having once formed, the quicker vent is given that pus by the knife, the less danger to the tissue involved, and therefore to the patient; provided more damage will not be done in reaching that pus than the pus itself will cause." This is especially true when we deal with suppuration beneath any of the denser tissues of the body, where the well known law of pus advancing along the route of least resistance, in opposition to the law of gravity.

The general constitutional treatment consists in keeping the bowels lax and putting the patient on a nutritious diet. Of local remedies, rest of the part in an elevated position, to relieve pain and to lessen congestion is, above all imperative. Ice or cold applications are good treatment, but should not be used longer than twenty-four hours, for the reason that at the same time that it contracts the small vessels and inhibits the multiplication of microbes it diminishes collateral circulation.

Lead and opium wash, hot or cold, applied on gauze and covered with oiled silk is soothing and a very good treatment. Poultices being a hot-bed for microbes should not be used. Antiphlogistine fails to give any relief. The best treatment is heat in the form of hot boric acid fomentations, that is, pads of gauze wrung out of hot boric acid solution, an ounce to the quart, applied as hot as can be endured and covered with oiled silk to retain the heat and moisture. These should be frequently renewed so as to keep them always hot; and where it is applicable, as the hands or feet, the inflamed part should be

submerged in the hot boric acid solution itself, for a period of ten minutes every hour. This can be kept up continuously, no harm ensuing.

This treatment will relieve the pain and in many cases abort the inflammation. It acts by constricting arteries, lessening congestion and favors collateral circulation. It is often necessary to precede this by multiple incisions. Before incising, the part should be made as sterile as possible. The incisions should be free enough to evacuate all pus and kept open if needed by drainage tube or by packing with wet antiseptic gauze. The abscesses after incision must be irrigated daily. Abscesses should be opened at the most dependent part, and it is often best to make counter openings.

L. K. SLOTE, Sec'y.

VAN BUREN.

At the annual meeting of the Van Buren County Medical Society, held at Hartford, December 8, 1904, the following officers were elected for the ensuing year: President, N. A. Williams, Bangor; Vice-President, M. Springer, South Haven; Secretary and Treasurer, J. R. Giffen, Bangor; Delegate, J. C. Maxwell, Paw Paw; Alternate, N. A. Williams, Bangor.

A committee was appointed to draft resolutions relative to the communication received from Dr. Amberg in regard to treating the well-to-do at U. of M. Hospital and submit the same to the society at our next meeting. The general sentiment of the society was in favor of upholding the regents in every effort to maintain the high standard of the University Medical School, in which we all have a personal pride. The following resolutions were adopted by the society:

Whereas, It is contemplated to present a bill at the next session of our legislature for a law to secure state registration of nurses, therefore be it

Resolved, That the Van Buren County Medical Society approve and recommend such action.

L. G. RHODES,

O. M. VAUGHAN.

Committee.

Adopted.

Resolved, That the Van Buren County Medical Society endorse the effort of the special committee appointed by the Michigan

State Medical Society to secure an appropriation from the state legislature to establish and maintain a state sanitarium for incipient tuberculosis.

GEO. D. CARNES,
WILBUR F. HOYT,

J. B. GRIFFEN,

Committee.

Adopted.

N. A. WILLIAMS, Sec'y.

WAYNE COUNTY.

The Wayne County Medical Society held its regular general meeting October 31, 1904. J. H. Carstens read a paper on "Stem Pessary for Dysmenorrhœa."

Abstract—

Painful menstration is caused by various pathological changes.

First, by abnormal formations of the pelvic organs, diseases of the tubes and ovaries, imperfections of the uterus, congestion and inflammation.

All these are distinct special varieties and require distinct special treatment according to the different conditions.

But there is a variety of dysmenorrhœa caused by a poorly developed uterus or premature atrophy, where any ordinary treatment or medication is of no avail, and in this variety the uterus must be developed. The use of dilators and electricity is of considerable benefit, but is troublesome and expensive, and must be long continued.

By introducing the stem pessary and keeping it in from three to six months or even longer, the uterus is developed, the pain relieved, and scanty menstruation increased. A good stem pessary is the hard rubber "Chapman."

All pelvic and ovarian inflammation must be rigidly excluded. Any general practitioner can introduce it, and the patient allowed to get out of bed in a few days and follow their usual vocation. The same surgical antiseptics must be observed as in any other operation. It should be introduced under an anesthetic, and if any pair or symptom of inflammation develops it can be readily removed.

H. W. Yates read a paper on "When Shall the Lacerated Cervix Uteri Be Repaired?"

W. F. STAPLETON, JR., Sec'y.

Meeting of the Surgical Section, November 28, 1904.

J. A. MacMillan presented a paper on "Fistula-in-ano."

The lessened resistance of the perirectal tissue due to the engorgement of the hemorrhoidal veins, consequent upon the upright position of man, and the invasion of this perirectal tissue by pyogenic organisms are important etiologic factors. The infection travels along the lines of least resistance and the sinuses thus formed open at one or more points into the bowel, as well as externally. Fistulae are often found in patients having pulmonary tuberculosis. This may be due to the loss of fat in the ischio-rectal region and the general vital depression. Many such fistulae are without symptoms. Lesions of the ano-rectal mucous membrane, ischio-rectal abscess and traumatism are also etiologic factors.

The diagnosis is made by inspection, palpation, and by exploration with proctoscope and fenestrated anoscope. The sinuses are traced out by means of injections of milk, potassium permanganate, etc., and also by probing.

Treatment. Patients in the advanced stages of tuberculosis, Bright's disease, diabetes or heart disease should not be subjected to radical operation, for under these conditions the wounds will not heal. In all other cases, radical operation should be advised. When refused, the bowels should be regulated, the external opening or openings widened and various antiseptic and stimulating solutions injected. Peroxide of hydrogen is probably the best cleansing solution.

In radical operations the entire track of the fistula must be laid open and an opening made into the gut, when a blind external fistula approaches the bowel. All the tissue is then divided over a grooved director. When the sphincters are cut, the incision should be at right angles to the fibres. Curetting and packing are the next steps.

The after treatment is most important, and it is on this that the success of the operation often depends. The purposes of the gauze packing are as follows:

(1) To control hemorrhage and give relief during the first twenty-four hours—firm packing.

(2) To keep the sides of the wound separated, during the second and third days—loose packing.

(3) To control exuberant granulations and maintain uniform healing, until healing is complete. Pressure from the gauze is applied as indicated, *i. e.*, firm packing where the granula-

tions are exuberant and very loose where they are frail.

(4) It has the general function of drainage.

A. N. Collins reviewed very thoroughly the subject of "Hemorrhoids."

After giving the anatomy and pathology, the following etiologic points were noted: Increased abdominal pressure, causing obstruction to the back flow, such as that caused by constipation, pregnancy, tumors, misplaced uteri and inflammatory exudates about the tubes; prolonged straining at stool, as in stricture of the urethra, stone in the bladder or enlarged prostate; drastic cathartics; faecal impaction; spasms of the sphincters and sedentary habits. Obstructed portal circulation does not predispose to hemorrhoids. Active congestion may be the starting point. The abuse of alcohol and condiments are causative factors.

The Symptoms. Itching, sense of weight, discomfort in sitting, pain and bleeding were reviewed. Prolapse and strangulation are secondary and may be very serious. Sloughing may cause a natural cure. Rectal catarrh may be a complication of internal hemorrhoids.

The diagnosis and differential diagnosis were reviewed.

Treatment. It should be our aim to first try to discover the cause and remove it. Regulation of the diet, bowels, habits and hygiene and the exhibition of drugs may be needed. In the writer's experience, cold water injections while at stool have given most excellent results.

The following methods of radical operation have been advocated:

- (1) Excision with knife or scissors.
- (2) Whitehead operation.
- (3) Removal with the ecraseur.
- (4) Application of caustic pastes.
- (5) Injection of carbolic acid and other fluids.
- (6) Puntate cauterization.
- (7) Removal by galvano-cautery wire.
- (8) Removal by clamp and scissors.
- (9) Dilatation of the sphincter muscles.
- (10) Ligature.
- (11) Removal by the screw crusher.

The clamp and cautery method seems as efficient as any. Whitehead's operation is undoubtedly good. The author, however, prefers the removal by excision, only the bleeding points being tied. Simple ligature is unsurgical and injections are dangerous. It is the author's opinion that we can find no more certain definite surgical procedure than to slit the mucous mem-

brane longitudinally, dissect out the dilated vessels and tie the bleeding points. We can then go as far as we need and no farther, which can not be so truly said of any other method.

H. W. Longyear.—In the treatment of fistula, all indorse the healing by granulation, but there are cases of simple fistula in which the sphincter can be saved. The fistulous track is dissected out, the parts thoroughly disinfected and then brought together by sutures.

In the treatment of hemorrhoids, one should always aim to bring about healing by first intention. The dissection out of the dilated vessels and the suturing of the edges of the mucous membrane with fine chromic cat gut is the method which I prefer. I have here a special clamp, which I have devised for this purpose. With it the edges of the mucous membrane can be held without crushing and the sutures put in place. It can be done very quickly.

L. J. Hirschman.—The subject of fistula is always interesting. At best the results of treatment are favorable in only about 45 per cent. of all cases. Simple, straight or slightly curved fistulæ should be dissected out and an attempt made at healing by first intention. When the opening into the bowel is low, a flap of mucous membrane should be brought down and sutured over it. In the case of an apparently blind fistula I do not believe that a probe should be forced through the bowel as advocated by Dr. MacMillan. To prevent leaving behind any ramifications of the sinus, it is well to inject methylene blue into the sinus. While fistulæ in tuberculous patients should often be left alone, tuberculosis fistulæ should be operated upon promptly, like any other focus of tuberculosis.

W. F. Metcalf.—I do not believe that cases of ischio-rectal abscess should be made into complete fistulæ by forcing a probe through into the bowel. I have found the closed operation, mentioned by Dr. Longyear, a good one in old cases, but in acute infections it is not satisfactory. Openings into the bowel should be closed with mucous membrane, a Whitehead operation being done if necessary.

In the treatment of hemorrhoids I have not used the cautery in ten years.

E. B. Smith and J. A. Attridge also spoke.

B. R. SCHENCK.
Sec'y. Surgical Section.

Transmission of Syphilis.—1. Sore throat and fever are not infrequently, especially in women, the first discovered symptoms of syphilis. I have known recent syphilis of the throat in each of two married women whose respective husbands were under my care for syphilis, treated as diphtheria; in one antitoxin had been injected. In another case, sore throat with fever was called tonsillitis, until a pink eruption on the chest was noticed, whereupon the diagnosis was changed to scarlet fever, and the house was quarantined. A girl just recovering from alleged quinsy and canker sores, really syphilis of the throat and mouth—inoculated her lover's lips with a chancre. Examination confirmed her assertion of virginity, but revealed a scaby, indurated papule on her left nipple, to which she admitted having applied on several occasions, the sickly, fretful infant of her married sister with whom she lived. This child had mucous patches and snuffles; its father was syphilitic. It behooves us not merely to divorce our conception of the chancre from sexual immorality and from the genitals, which most of us do—but also to eliminate the chancre from our conception of the essential clinical features of syphilis—which some of us do not—and to regard a sore throat with fever, especially in adults, as a possible manifestation of acute syphilis, as well as of tonsillitis, diphtheria and scarlet fever.

2. Syphilis could be minimized, if not virtually eradicated, far more quickly, surely and easily than tuberculosis, not by licensing prostitutes nor by educating youth to chastity, but by making the acquisition of syphilis practically impossible through the general practice of circumcision. That the notorious infrequency of syphilis among the Jews is not due to their superior continence is shown by their acquisition of their full share of gonorrhœa. That it is due to the toughening of the penile covering resulting from early circumcision is obvious, and is illustrated by the rarity of syphilis among all other circumcised races. The Egyptian practice of circumcision just before puberty is one of the several facts suggesting that the general adoption of this measure by the early Semitic races was for protection against syphilis.

3. The later evils of syphilis can be restricted by impressing upon the subjects of the disease two injunctions to take anti-syphilitic remedies for two months in every year after the termination of active treatment and to inform any physician consulted for relief from an obscure, chronic ailment of the earlier syphilitic infection.—(*Medical Record*, December 17, 1904, W. T. BELFIELD.)

Miscellaneous.

NEWS ITEMS.

A report is current that Dr. William H. Welsh, Professor of Pathology at Johns Hopkins, will succeed Professor Osler as Professor of Medicine on the latter's departure for Oxford, England.

The Civil Service Commission has ruled that the commission of medical experts appointed last year by the city authorities to investigate cases of acute respiratory diseases in the city with a view to lessening them, can not employ assistants in other cities unless the physicians so employed first come to New York and undergo a municipal civil service examination. The ruling has surprised the expert commission, which is composed of Drs. William Osler, William H. Welsh, Edward G. Janaway, T. Mitchell Prudden, L. Emmett Holt, Frank Billings, John M. Musser and Theobald Smith. To pay the expenses of the commission's work the Board of Estimates made an appropriation of \$10,000 to assist them in their researches. The members of the commission asked leave to appoint without competitive examinations physicians of Baltimore, Philadelphia and Boston to collect data, statistics and other material of value to them from those centers of population. It was proposed to pay these physicians \$100 a month. The Civil Service Commission refuses the request.

Dr. Warren, Food Commissioner of Pennsylvania, from a thousand samples of whisky collected from the state, says that ninety-five per cent. showed the presence of wood alcohol in poisonous quantities and India pepper (to give it "snap"). Some samples contained arsenic, turpentine and traces of prussic acid.

Dr. James G. Hyndman died in Cincinnati after an operation for appendicitis September 18th. He was formerly secretary of the Ohio Medical College, and professor of Laryngology.

New York City makes free of charge the Widal blood examination, the Ehrlich diazo reaction, blood examinations for malaria, and sputum analysis.

Koch says that he leaves the farther study of tuberculosis to others, and will return to German Africa to study cattle disease transmitted by the tick.

Statistics issued by the Milwaukee Health Department show that that city leads all cities in the United States in the matter of mortality percentage. The Milwaukee rate for 1903 was 12.99. Detroit was second with 13.45.

The first meeting of the Ninth District Medical Society was held at Traverse City November 15, 1904. All felt that the meeting was a source of profit and pleasure, and it was the general opinion that it should be a yearly occurrence.

CHANGE IN MEMBERSHIP.

(Nov. 15th to Dec. 15th.)

NEW MEMBERS.

A. Ahlborn, Detroit, Mich.
 F. D. Baker, Flint, Mich.
 R. Beattie, Detroit, Mich.
 G. W. Chisholm, Pontiac, Mich.
 R. W. Chivers, Jackson, Mich.
 J. C. Dodds, Detroit, Mich.
 S. P. S. Edwards, Moline, Ill.
 F. W. Freeman, Saginaw, Mich.
 J. W. Gething, Battle Creek, Mich.
 S. W. Given, Flint, Mich.
 C. S. Gorsline, Battle Creek, Mich.
 E. C. Greene, Pontiac, Mich.
 J. F. Gruber, Mesick, Mich.
 T. C. Henry, Jackson, Mich.
 L. Kahn, Saginaw, Mich.
 G. Krausman, Detroit, Mich.
 H. M. Leach, Saginaw, Mich.
 J. F. Lemon Dansville, Mich.
 A. B. Lull, Battle Creek, Mich.
 C. W. McColl, Wyandotte, Mich.
 Dr. McGregor, Burnside, Mich.
 T. A. Millard, Detroit, Mich.
 H. J. Myer, Saginaw, Mich.
 R. Opperman, Detroit, Mich.
 Thomas Potter, Detroit, Mich.
 A. J. Read, Battle Creek, Mich.
 O. L. Ricker, Cadillac, Mich.
 G. A. Robertson, Jr., Battle Creek, Mich.
 A. S. Rogers, Saginaw, Mich.
 E. C. Rumer, Davison, Mich.
 G. A. Seybold, Jackson, Mich.
 L. E. Simpson, Pontiac, Mich.

C. E. Skinner, Howell, Mich.
 T. E. Smith, Detroit, Mich.
 T. P. Sprague, Wyandotte, Mich.
 G. W. Stewart, Saginaw, Mich.
 F. V. Stutzke, Detroit, Mich.
 H. C. Switzer, Gaines, Mich.
 P. B. Taylor, Clio, Mich.
 R. Van Baalen, Detroit, Mich.
 T. M. Williamson, Saginaw, Mich.
 H. R. Wilson, Saginaw, Mich.

CHANGE OF ADDRESS.

E. J. Covey, Swartz Creek, Mich.
 P. E. Marsh, Otter Lake, Mich.
 W. S. Shipp, Battle Creek, Mich.

DIED.

Emma L. Clawson, Battle Creek, Mich.
 E. H. Collier, Battle Creek, Mich.
 J. H. Taylor, Lapeer, Mich.

BOOKS RECEIVED.

Thirtieth Annual Report Michigan State Board of Health, 1902.

Seventh General Conference of Health Officials in Michigan, 1904.

Laboratory Manual of Human Anatomy. L. F. Barker. J. B. Lippincott & Co., Philadelphia and London.

Present Position of the Surgery of the Hypertrophied Prostate.

1. Enlargement of the prostate has been attributed to various causes, none of which have as yet been demonstrated.

2. In prostatic symptomatology, nothing new that has any important bearing on the diagnosis or prognosis has been added to our knowledge during the last decade. (a) Subjective symptoms, excited by prostatic hypertrophy are frequency of urination, difficulty in starting the stream, feebleness of the stream, interrupted urination, urinary incontinence, retention of urine, changes in urine, sensory disturbance and constitutional changes. (b) Objective symptoms are still elicited by measuring quantity of residual urine, digital rectal examination and by instrumental examination to determine the length of urethra, seat, nature and degree of obstruction, tonicity of bladder, and conditions of ureters, renal pelvic and kidneys.

3. In considering the indications for treatment, the classification of cases of prostatic hypertrophy is of interest. It is well to determine predominant character of the growth, whether soft, indicating excess of granular and muscular elements, or hard, showing advanced fibroid change. The distinction can be made more simply and accurately by rectal palpation than by any other

method; (b) the seat of the growth, median, lateral or general; (c) the presence or absence of general arteriosclerosis; and (d) condition of the vesical mucosa and of the upper urinary tract as to pyogenic injection.

4. As to the various possible plans of managing a case of prostatic hypertrophy it may be said: (a) That a purely expectant treatment is proper only in those cases (usually discovered during a rectal examination, made for other purposes) in which the enlargement has produced no symptoms, catheterism is easy, and there is no residual urine. (b) That no medical treatment is worthy of consideration except as, by means of urinary antiseptics, it may tend to prevent or mitigate the occurrence of infection. (c) Palliative treatment consists in either the systematic use of instruments for the purposes of dilatation or in the employment of a catheter. A patient who presents the symptoms of the prostatic-vesical congestion of the early stages of hypertrophy, who is disturbed once or twice at night, who has an enlargement of moderate density, appreciable through the rectum, but not offering much resistance to the introduction of an ordinary catheter, and who has but little residual urine, is likely to derive great benefit from systematic introduction of full-sized steel sounds. That this can have any curative effect is unlikely. Catheterism should be systematically employed in cases in which the quantity of residual urine is three to four ounces or more, and in which the introduction of the instrument is easy and painless and the urine is sterile. (d) Operative treatment should now be regarded as distinctly indicated whenever a progressive prostatic hypertrophy exists or when, even in patients with but moderate obstruction, a good compensatory hypertrophy of the bladder and a small amount of residual urine, catheterism is becoming more painful or more difficult, the urine shows fermentative changes and the vesical congestion is passing into a true ceptitis.

5. Operation of choice. (a) Operations directed to procure shrinkage of the prostate by operations in the sexual apparatus (castoratory vasectomy). The author believes in properly selected cases, these operations are likely to have a low mortality, and when fully successful, they secure a return to a condition more closely resembling the normal than most of the other operations looking toward a radical cure of the hypertrophied prostate. (b) Direct removal of the enlarged gland. The author favors the "total enucleation" operation of Freyer, and feels that past experience does not justify the expectation that the results of prostatectomy by the perineal route will compare favorably with the suprapubic operation of Freyer (*Annals of Surgery*, December, 1904, J. WILLIAM WHITE).

Book Notices.

Under the charge of

RAY CONNOR.

A LABORATORY MANUAL OF HUMAN ANATOMY. By Lewis F. Barker, M. B. Assisted by D. DeWitt Lewis, M. D., and Daniel G. Revell, M. D. 583 pages. 295 illustrations. Cloth, \$5.00. J. B. Lippincott & Co. Philadelphia and London, 1904.

This handsome book is intended to fill a gap in our present supply of text books. It is an attempt to make the work of the anatomical laboratory somewhat easier for both student and teacher. Much excellent advice is to be found in the introduction as to instruments needed, their care and use, the preservation of the part, clothing for the dissector, drawing, books, etc.

It is not purposed that all human anatomy should be found in 600 pages, but the student is urged to seek further a field, and at least gain some idea of the extent of the literature on the subject. The nomenclature, formulated by the German Society of Anatomists, and employed in the atlases of Spalteholz & Toldt, has been used throughout.

The body of the book is divided into five parts considering the upper and lower extremities, head and neck and dorsum of trunk, thorax and abdomen and pelvis. The illustrations are well chosen with the idea of supplementing Spalteholz's Atlas. Many are taken from Toldt's splendid work. The mechanical work is very well done, and three sets of indices add to the completeness and usefulness of the work.

INTERNATIONAL CLINICS. A QUARTERLY OF ILLUSTRATED CLINICAL LECTURES AND ESPECIALLY PREPARED ORIGINAL ARTICLES. Edited by A. O. J. Kelly, A. M., M. D., Vol. iii. Fourteenth Series, pp. 292. Cloth, \$2.00. J. B. Lippincott Co. Philadelphia, 1904.

The present volume is given over to the consideration of points of interest on syphilis, treatment, medicine, surgery, gynecology and neurology. Among the contributions on syphilis which take up nearly one-half of the volume, is an interesting essay by Prof. Fournier in "Syphilis and Suicide," in which he cites cases of his own and the various causes which lead syphilitic patients to take their own lives.

Clinics by such well known teachers as William G. Spiller, Isman Boas and William H. Katzenbach, are included in this volume. While the value of this kind of publication may be open to question, its popularity is attested by its continuance. The papers are well written and include a wide range of subjects, all of them of greater or less interest to the general practitioner for whom they are evidently intended. Many of the articles are well illustrated.

THE SURGICAL TREATMENT OF BRIGHT'S DISEASE. By George M. Edebohls, A. M., M. D., LL.D. Pages 327. Price, cloth, \$2. Frank F. Lissiecki, Publisher. New York, 1904.

In no department has surgery made more rapid strides, during the past five years, than in that relating to the urinary organs. It is fair to say that no one of our surgeons has made more valuable contributions to our knowledge of the surgical diseases of the kidney and to the technics of renal operations than has Dr. Edebohls. His work on the decapsulation of the kidney as a therapeutic measure in chronic Bright's disease is more or less familiar to all, from the numerous articles published by him in the various medical periodicals. These have been collected and added to in a recent book, entitled "Surgical Treatment of Bright's Disease." About three-fifths of the book is made up of new matter and the whole subject clearly and carefully brought up to August of this year.

Lack of space forbids a review as complete as the subject deserves. Only a few of the important points can be noted.

The beneficent results are not due to the simple relief of renal tension, for in chronic Bright's disease the capsule never compresses the tissue, although it may be adherent. The operation results in the formation of strong connective tissue bands, attaching the kidney to its surroundings. In these bands are numerous large blood vessels. The arteries are larger and more numerous than the veins and in all of them the direction of the blood current is toward the kidney. To this vast increase in the blood supply is due the improvement following decapsulation.

The method of operating is clearly set forth.

The histories of 72 patients who have undergone operation, prior to January 1, 1904, are most carefully reported. Seventeen have been cured. Twenty have improved, a majority of them being on the high road to complete health and bid fair to figure among the cures in the next report.

The complete bibliography is most valuable.

The frankness of the report and the painstaking care in reporting the cases and in keeping post-operative details can not be too highly praised

B. R. S.

BLOOD-PRESSURE AS AFFECTING HEART, BRAIN, KIDNEYS AND GENERAL CIRCULATION. A PRACTICAL CONSIDERATION OF THEORY AND TREATMENT. By Louis F. Bishop, A. M., M. D. 12mo. 112 pages. (Cloth, \$1.00. E. B. Treat & Co., New York City, 1904.

This little book deals with the subject under discussion not from the laboratory and mechanical point of view, but rather from the clinical and practical side. The primary low-pressure cases are differentiated from the primary high-pressure ones on the one hand, and the secondary low-pressure ones on the other. Some practical therapeutic points are given and the book is gotten up in neat and attractive style.

NEW METHODS OF TREATMENT. By Dr. Laumonier. Translated by H. W. Syers, M. A., M. D. 321 pages. Cloth, \$2.50 net. W. T. Keener & Co., Chicago, 1904.

This translation is based on the second French edition dated about one year ago. Although from the nature of the subject, new drugs appear before any book can get through the press, especially in two languages, nevertheless the work before us is a mine of information as to the nature of new drugs, many of which are familiar only by name.

The work is divided into eleven chapters on the various subjects, and only the newer drugs are considered. Many new forms of treatment such as opotherapy, zomotherapy, intra-pulmonary injections, etc., are given, and the results obtained stated.

The book is neatly gotten up, with clear type on good paper. The proof reading is well done and an index adds to its value. It should prove of service in helping to keep in touch with the newer forms of therapy.

THE MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY AND CONNECTICUT. Published by the New York State Medical Association. Volume VI. New York, 1904-5.

The excellence of the work which the New York State Medical Association has done for the profession is well known to all who have seen this publication. The information contained in its pages covers over 15,000 names, and is of immense value to the profession as well as the public. The use of different colored paper for the various parts of the book makes it exceedingly easy of reference. It is a fine example of what a well organized profession can do for itself in one of many possible ways.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF ANATOMY; INCLUDING THE ANATOMY OF THE VISCERA. By Charles B. Nancrede, M. D. Seventh Edition. Thoroughly Revised. 12mo. volume of 419 pages, 150 illustrations. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Cloth, \$1.00 net.

In this last edition, the author has re-read the entire book and re-written the section on the Nervous System. The original plan of the work has not been changed. That it meets a real need with students is evidenced by the continued demand through so many successive editions.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF BACTERIOLOGY. By M. V. Ball, M. D. Fifth Edition. Thoroughly Revised. By Karl M. Vogel, M. D. 12mo. volume of 343 pages with 96 illustrations, some in colors and six plates. Cloth, \$1.00 net. Philadelphia, New York, London: W. B. Saunders. 1904.

The advances in bacteriology are so rapid that a revision of even so brief and concise a book as the one before us is required every few years. The method of question and answer is not used in this compend as in most of the others of this series. This edition aims to reflect as nearly as possible bacteriology as it exists to-day.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF MATERIA MEDICA AND PRESCRIPTION WRITING. By Henry Morris, M. D. Sixth Edition, thoroughly revised. By W. A. Bastedo, Ph. G., M. D. 12mo., volume of 295 pages. Cloth, \$1.00 net. Philadelphia, New York, London: W. B. Saunders & Co., 1904.

In preparing the sixth edition of Dr. Morris' "Essentials of Materia Medica," no change has been made in the character or scope of the work. Some chapters have been re-written and articles added on adrenalin, stypticin and the iodine and silver synthetics.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF NERVOUS DISEASES AND INSANITY: THEIR SYMPTOMS AND TREATMENT. By John C. Sjaw, M. D. Fourth Edition. Thoroughly Revised. By S. E. Jelliffe, Ph. G., M. D. 12mo. volume of 196 pages, 52 illustrations. Cloth, \$1.00 net. Philadelphia, New York, London: W. B. Saunders & Co., 1904.

The present volume has been entirely recast and the effort made to bring it in line with what is known to-day of diseases of the nervous system. Owing to the size of the book, a complete discussion of some of the rarer forms of nervous disease cannot be attempted, but reference is made to them in connection with their kindred diseases.

BLAKISTON'S QUIZ-COMPENDS. A COMPEND OF MEDICAL LATIN. DESIGNED EXPRESSLY FOR ELEMENTARY TRAINING OF MEDICAL STUDENTS. By W. T. St. Clair, A. M. Second Edition. 132 pages. Cloth, \$1.00 net. P. Blakiston's Son & Co. Philadelphia. 1904.

This work should prove of value to those medical students whose early training did not include any Latin. Twenty-two lessons are given covering the five declensions, four conjugations, etc. A list of abbreviations is added and short vocabularies conclude the book. The form and general appearance of the volume matches the rest of the series.

A PHILOSOPHY OF THERAPEUTICS. By E. C. Price, M. D. 336 pages. Cloth, \$2.00. Nunn & Co., Baltimore, 1904.

This neat little book is dedicated to the memory of those two "immortals, Galen and Hahnemann." It endeavors to lay down a philosophy of therapeutics founded on two postulates: first, that it is the human organism that is the active factor in the healing of the sick and not drugs, and second, that there are two therapeutic laws.

Among the works consulted are many well known works on therapeutics, such as Cushty and Hare, as well as many more on homeopathic subjects. It aims to bring the disagreeing elements to a common unity based on the prime object of all good physicians, namely, the greatest good to their patients.

Progress of Medical Science.

MEDICINE.

Under charge of

HARRISON D. JENKS.

Internal Secretions.—W. H. Thomson gives a very interesting resumé of our knowledge of "Internal Secretions." This will include such gland secretion as cannot be collected and examined in the usual way. It has only been since we have been examining patients in whom such glands were wanting, or at least not functioning that we have got any idea of what role they play in the organism. That it is a very important one is now generally believed. Yet their importance is probably not yet fully realized. There seems no common agreement about many of the secretions of the body even where they can be easily collected.

SPLEEN—While it is the largest ductless gland, it seems to have little important function, for its total removal is possible with perfect health. It is a sort of diverticulum in the portal circulation and not a gland proper.

THYMUS.—This is intimately connected with the origin of white blood corpuscles. Its activity is greatest in early childhood. In 18 infants dying of marasmus, not due to improper feeding or intercurrent disease, the only lesion found was atrophy of the thymus, from 12 grammes to 2.2 grammes. Atrophy of the thymus is always found in infantile atrophy, and the condition of the thymus is an index of the nutrition of the infant. Sudden death in children is most often caused by the hypertrophy of the gland. It may be an indicator of a general increase in the lymphoid tissue in the body. It may be stated that undue cell proliferation is always a sign of deficient nutrition.

THYROID GLAND.—This gland adds an important secretion of the blood, of value in maintaining the nutrition. Recently small bodies have been found, either closely associated with the thyroid or else imbedded in the thyroid, called parathyroids. They seem entirely separate in function from the thyroid. It would seem as though these parathyroid bodies might have an antitoxic property by which poisons in the body may be neutralized. For when the parathyroid bodies are removed, a virulent poison acting on the nervous system is developed, causing fatal tetany, rapid breathing, convulsions, etc. These symptoms can be prevented by bleeding and injection of normal salt solution. In Graves' Disease are the characteristic symptoms due to an excess of thyroid secretion or to a deficiency of parathyroid secretion? Indications rather point to trouble

with the parathyroids. Enlargement of the thyroid is common and yet unassociated with any symptoms of Graves' Disease. Yet in the latter disease there may be no enlargement at all of the thyroid.

Thompson believes that the thyroid is not the primary seat of the disease at all, but only secondarily involved in some cases, enlarged by the blood toxine, in others unaffected. That the toxine is of gastrointestinal origin and that treatment should be along that line.

The thyroid secretion is probably intimately connected with the nutrition of the connective tissue, and in myxedema the mucoid infiltration is due to degenerative changes in fibrous and connective tissue.

PITUITARY GLAND.—In many cases of acromegaly some trouble is found with this gland, but it seems secondary to hypertrophy of the bony structure within which it lies. Acromegaly does not seem due to derangement of the internal secretions but to some unknown nutritive trouble.

PANCREAS.—The secretion from this gland has the widest solvent properties on starch, fats, protids, but it has in the Islands of Langerhans something to add to the blood, something that prevents diabetes. If totally extirpated marked diabetic symptoms at once ensue, while if part of it is left in the symptoms do not occur. The muscular tissues are the chief generators of animal heat, and they have the function of oxidation as well. Otto Cohnheim has lately found an enzyme produced in muscle which alone does not act on sugar, but mixed with the secretion from the Islands of Langerhans acts strongly on sugar. He believes it will account for all the sugar combustion in the body.

ADRENALS.—The properties of internal secretion of the adrenals indicate that the vast mechanism of muscle throughout the body, both striped and unstriped, depends for its healthy tone not only upon the constant stream of efferent nerve energy, but equally upon the presence in the blood of this active principle of the adrenals." It is fair to surmise that the high tension pulse so often met with in different conditions, notably in nephritis, is due to the presence of adrenal in the blood; the inflammatory condition of the adrenal glands may be due and transmitted from the inflammatory trouble situated in kidney lying near it.—(*New York Medical Journal*, November 19 and 26, 1904.)

SURGERY.

Under the charge of

MAX BALLIN.

Has Gelatine Any Influence on the Coagulation of the Blood?—Gelatine hastens the coagulation of the blood. For hemorrhages, gelatine can be applied locally, internally or hypodermically. Careful sterilization of the gelatine is very important, as infections with tetanus have occurred. An entirely safe procedure of sterilizing gelatine without sacrificing its hemostatic qualities, is to put it in a steam sterilizer for thirty minutes, at a temperature of 100C., and repeat this for five consecutive days. (H. KAPOSE, *Mittheilungen aus den Grenzgebieten der Medicin und Chirurgie*, Vol. 13, III.)

Typhoid-bacilli in Abscess with Vidal's Reaction Twenty-three Years After Recovery From Typhoid Fever.—A man sixty-one years old had had a severe attack of typhoid fever in 1881. During convalescence from the fever an abscess developed over the left lower costal cartilages. The abscess required several incisions; frequent attacks of suppuration during the next few years were treated by incision, curetting and resection of part of the sternum and ribs. In September, 1903, a new abscess formed. The pus of this abscess contained typhoid-bacilli, also the blood of the patient gave Vidal's reaction at this time—twenty-three years after primary infection with typhoid. (HARBORDT, *Zentral-blatt fuer Chirurgie*, 1904. 44.)

Operative Treatment of Perforating Gastric Ulcer.—Atherton reports a third consecutive successful case of suture for above condition and concludes from this experience as follows: "The main element in securing a favorable result in operations for perforated gastric ulcer is unquestionably an early diagnosis and a prompt resort to surgical treatment. The chief reliance should be placed on the location and severity of the pain, together with the board-like hardness of the abdominal muscles, in determining the diagnosis. Considerable help is afforded in most cases by the previous history of dyspeptic symptoms. Not much dependence can be placed on the absence or otherwise of liver dullness. Only once in some half-dozen of these cases have I noticed so much tympanites as to obscure the normal percussion sound over that organ. Neither can we derive much help from observing the presence or absence of shock. Usually, more or less will be met with at the outset, but this is not always

the case. Some vomiting commonly occurs, and at times a little blood is found in the vomited matter.—(A. B. ATHERTON—*Annals of Surgery*, November, 1904.)

The Bridging of Nerve Defects.—Powers reviews the results of operation in cases in which approximation of the divided nerve segments by simple suture is impossible.

1. Nerve-grafting, that is, grafting of the piece of a dog's nerve into the defect. Of 22 cases, 16 were complete failures, 3 doubtful, 3 good results.

2. Flap-operation, neuroplasty. The principle of this operation is: A portion of the central or peripheral or both ends is partly detached, turned back and united to the other end or flap. Of six cases, two were failures, four complete or partial successes.

3. Implantation or Anastomosis, that is, implanting the distal end of the divided nerve, into an adjacent nerve. For instance, implantation of the divided median into the ulnar nerve, or of the peroneal, into the internal popliteal nerve. The results were encouraging in six of ten cases.

4. Resection of bones. In order to approximate divided nerve ends a segment of long bone is resected. The method was employed mainly in those cases in which the bone was also injured in the original traumatism.

5. Suture à Distance. That is, bridging the nerve defect with loops of catgut. Some positive results are reported.

6. Tubulization. That is to promote nerve regeneration along the natural paths. Surgeons have made use of barriers to prevent the fusion of nerve substance with the surrounding tissues. Results negative.

Conclusion: It hardly seems possible at this time to say definitely what form of bridging should be employed. More cases, and especially cases recorded later and better, are needed. Neuroplasty and implantation (anastomosis) are always available resources, and for the present it would seem that they should be preferred. Resection of bone may be advisable in selected cases. Transplantation of foreign grafts should be abandoned. It is hardly necessary to say that prognosis in an individual case should always be guarded, and that repeated operations may be necessary.—(CHARLES A. POWERS, *Annals of Surgery*, November, 1904.)

GYNECOLOGY AND OBSTETRICS.

Under the charge of

B. R. SCHENCK.

Treatment of Pathologic Face and Brow Presentations.—J. B. DeLee gives as the result of a study of twenty-one personal cases of face presentation, the following directions for their management. 1. With normal pelvis and normal child, with the chin anterior, watchful expectancy. 2. Normal pelvis, normal child, chin posterior, at first expectancy; when the chin shows any tendency to rotate to the front, manual correction to occipital presentation; failing in this, podalic version. 3. Normal pelvis and child, face deep in pelvis with chin anterior and a strict indication for delivery, forceps are to be used. 4. Normal pelvis and child, face deep in the pelvis with chin in posterior position, manual correction when version is contraindicated. If this fails, craniotomy or symphysiotomy are the alternatives. 5. In the mildly contracted flat pelvis with normal child, version should be elected. 6. Contracted pelvis of mild degree, normal child, manual correction followed by expectancy. 7. Face presentation, complicated by palcenta previa, prolapse of the cord or extremities, rigidity of the cervix, threatened rupture of the uterus, or a dead child, monstrosity or a highly contracted pelvis, offers no good field for manual correction, although it can be done.—(*American Medicine*, Nov. 12, 1904.)

Danger in the Use of the Glass Catheter during Parturition.—Hunner reports an interesting case, in which he removed five pieces of glass tubing from the bladder through a Kelly cystoscope.

The history as given by the attending obstetrician was as follows: While delivering the patient, a primipara, aged 21, he discovered the bladder full of urine, after the first stage had progressed for eight hours, and, as was his custom, he passed an ordinary sterilized glass catheter. The child's head was engaged and had to be pushed up before the catheter could be inserted. During the catheterization, a labor pain came on, with the result that the catheter was caught between the descending head and the symphysis pubis and almost half of its length was left in the bladder.

On account of the discomfort which cystoscopic examination would cause so soon after labor and the danger of infection at that time, and despite the probability of the development of a traumatic cystitis, which, however, readily responds to treatment, it was decided to postpone the search for the missing portions until about the tenth day.

On that day, for the first time, urination became somewhat frequent. The patient was then placed on a padded table in the Sims position, the parts thoroughly cleansed and a solution of 10 per cent. cocaine introduced into the urethra. A number 10 cystoscope was then inserted, without causing pain, and a piece of catheter nearly two inches in length withdrawn. No other pieces could be seen.

The knee chest position was then assumed, causing the fundus vesicae to thoroughly dilate. Four smaller pieces were then readily seen and removed. Under urotropin, the mild cystitis rapidly cleared up.

Hunner, in commenting on this case, points out the danger of using a glass catheter during labor. Theoretically there would be some danger of perforation were a metal catheter to be used. Although the manipulation of a soft rubber catheter, in an aseptic manner, is more difficult, it undoubtedly offers the only method of avoiding traumatic injury in catheterizing during the second and third stages of labor. (*American Medicine*, Nov. 5, 1904.)

Value of Abdominal Hysterectomy for Carcinoma Uteri.—Since Wertheim, four years ago, advocated the more radical extirpation of the pelvic tissues in doing hysterectomy for carcinoma, his statistics have been eagerly awaited. He now announces that his results are incomparably better than before the extended operation was employed.

Out of fourteen cases, nine are free from recurrence after four years; of thirty-one, nineteen are free after three years; of forty-three cases, twenty-six are free after two years. Since adopting this method, the operability of all cases has been increased from twenty-nine to fifty-one per cent.

Wertheim never operates through the vagina except in cases of incipient cancer of the vaginal portion of the cervix, but believes in doing the abdominal operation and removing all of the glands possible. Recurrence was noted in less than one-third of the cases in which the removed glands showed no evidence of metastasis.

The most enthusiastic of the advocates of vaginal hysterectomy can hardly show results comparable to Wertheim's. —(*Wiener klin. Woch.* XVII, No. 28.)

PHARMACOLOGY AND THERAPEUTICS.

Under the charge of

W. F. WILSON, JR.

Medical Treatment of Gastric Ulcer.—The two cardinal points in every ulcer cure and regimen are rest and milk diet. As soon as the cure is begun and the patient settled in bed, a period of absolute abstinence from food by the stomach should be inaugurated. Nothing but water and pieces of ice should be swallowed. Both the loss of nourishment and the loss of fluid may be supplied in some measure by nutrient and saline enemata, although these are poor substitutes and cannot be continued indefinitely. The method of using nutrient enemata is to give the patient daily, in the morning, a high lavage of the colon, say of four quarts of normal saline solution. After a rest of at least an hour nutrient enemata may be given, and may be continued at intervals of four hours during the day. Each enema should not exceed four ounces in bulk, and may consist of egg, milk, meat, broths, or of combinations of these foods. All the foods so used should be predigested to a degree of complete peptonization by means of pancreatic extracts and bicarbonate of soda. There is a wide spread habit in practice to use this peptonizing process only for milk and to add to it only the preparations of meat peptones which are on the market. The freshly prepared peptonized broths and eggs are as easily made as is peptonized milk, and one avoids thus use of alcohol. Gastric feeding may be resumed in mild cases within four days, but in the severer cases it will be necessary to wait a full week or more. The first food used is peptonized milk in small quantities, gradually increased until the patient is taking two quarts a day. During the third week cooked cereal gruels may be added to the milk. The fourth week will see added to the dietary crust of bread, butter and boiled egg. The fifth week, one may add potatoes, rice, boiled macaroni, custards, chicken and sweet breads. The final, or sixth week, the diet should be increased to include beef, mutton, green vegetables, light salad without vinegar, cooked fruits and simple puddings.

Drug measures: The principal astringents used are the perchloride of iron and the nitrate of silver, of which the latter gives the best results. The use of bismuth has claimed for it an antiseptic and astringent action, as well as a direct action to reduce the hyperacidity in addition to the mechanical protective effect of the large doses (2 1-2 to 5 drachms daily). The olive oil cure of

Cohnheim is used also to form a protective coating to the ulcer, to relieve the pain and vomiting and the tendency to pyloric spasms, to check the secretions of acid, and because of its food value. Anti-emetics will often prove of value, and anodynes as cocaine, codeine, and anesthesin will often control attacks of gastralgia. Morphine should be avoided because it tends to increase acidity. The most efficient drugs to combat the constipation of these patients are the alkaline salines. For large accumulation in the colon enemata are used. The condition of uræmia will require general treatment, and iron will be needed. The occurrence of active hemorrhage suggests surgical interference. The medical measures to be employed to combat it are absolute rest, local application of ice to epigastrium, and ice by mouth. There is only one drug which is of service, morphine hypodermically. The loss of fluid and consequent thirst may be overcome by means of saline enemata.—(*The American Journal Medical Science*, Dec., 1904, LAMBERT.)

Treatment of Sea-sickness.—A broad, tight flannel belt should be worn, and at first the patient should stay on deck. Usually lying on the back is to be preferred. The food most readily retained is dry biscuit, buttered and lightly sprinkled with cayenne pepper and roasted, or egg flip. In every severe case the less fluid taken the better. Alcohol is inadvisable until the worst is over. The following is the prescription used: Two drachms of syrup of chloral and one-half dram of ammonia bromide made up to one and one-half ounces with water. If this fails, give one minim doses of tincture iodine in water every half hour. If seen after a day or two, give initial purge of calomel.—(*British Medical Journal*, Nov. 9, 1904).

Treatment of Blenorrhagia.—The author considers that the method of Düring (rest in bed and appropriate regulations), when it is applicable, gives some very superior results. When patient cannot remain in bed, santal wood oil is given during the acute stage. Later irrigations of permanganate of potash are employed at polyclinic and patient uses injections at home of protargol or of nitrate of silver 1 to 1000 or 1 to 500. At end of 15 days, injections of resorcin (1 to 30) are prescribed. In cases of ceptitis, tablets of helmitol gr. v. (6 a day) give excellent results. Irrigation of permanganate are given at the same time. In cases of prostatitis, massage is employed twice a week, and one installation of nitrate of silver (1 to 200 to 1 to 100) is given.—(*The American Journal of Urology*, December, 1900, BERING.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the charge of

A. P. BIDDLE.

Parasitic Sycosis Communicated from Cattle.—Dr. Breakey, after reviewing the history of a few cases of Sycosis Parasitica which had recently been under his care, the diagnosis of which was readily confirmed by the demonstration of the mycelia and spores of the *trichophyton* in roots and shafts of hair and beard, and in crusts and scrapings of cuticle and by the association of the patients with the care of cattle, the milking and handling of cows, calls attention to the amount of this infection among cattle, especially in the west and during the winter months; and, while referring to our knowledge of the conveyance of diphtheria by the cat and the dog, plague by the rat, typhoid fever by the fly, etc., shows that the dangers of disease communicated from the lower animals is not wholly as to systemic conditions, but that parasitic diseases of the skin are also communicated probably much more frequently than has heretofore been thought, and quite often enough to furnish grounds for the growing belief that most, if not all the parasitic diseases of the skin, have had their origin in the lower animals.—(WM. F. BREAKEY, *Journal of Cutaneous Diseases*, Dec. 1904.)

Diseases of the Skin connected with Errors of Metabolism.—That normal and abnormal metabolic processes play an important part in health and disease cannot be denied, but we are yet far from an accurate knowledge of the exact manner in which their effect is produced, or indeed of the definite changes in the tissues produced thereby. While experimental physiology and laboratory studies have done much to demonstrate some of the facts of assimilation and dissimilation, it is to clinical observations that we must mainly turn for our knowledge of the effects of metabolism on the skin or other organs.

It must be acknowledged that thus far there have been relatively few recorded observations showing these effects with anything like the positiveness which is often demanded in modern medicine. It can further be stated that many of the facts which must be accepted clinically, as to relationship under consideration, can probably never be demonstrated experimentally or by laboratory methods, with the precision we are accustomed to look for in regard to some of the medical and surgical matters in the realm of bacteriology.

But, on the other hand, there is much in medicine which is incapable of exact demonstration, and we rightly accept many facts and conclusions, on the basis of accurate clinical observation by those qualified to judge. In this way much of the evidence in regard to the relation of errors of metabolism to certain diseases of the skin has

been accumulated, and with advancing science they are being more and more put to the tests of laboratory work.

We may sum up our knowledge in regard to diseases of the skin dependent upon errors of metabolism, as follows:

1. Metabolism represents the changes occurring in the system, whereby nutritive materials and oxygen are transformed into living tissue, and re-transformed into waste products, while, during these processes, their potential energy is being given off in living force and heat.

2. As healthy cell action and transformation are produced and maintained by perfect metabolism, so when there is perverted metabolism the structures in various parts of the body must suffer, and this we call disease.

3. As every cell in the body constantly takes up and gives off material, so the results of metabolism can be affected by the normal or abnormal action of every living cell in the organism.

4. Metabolism is, however, principally affected by (a) the kind of nutriment taken; (b) the action of the digestive organs and ductless glands, and (3) the action of the nervous system.

5. Certain skin lesions, or eruptions, have been credibly reported as connected with or dependent upon the generally recognized metabolic conditions of (a) gout; (b) rheumatoid arthritis; (c) diabetes; (d) obesity; (e) scrofulosis.

6. As yet no absolute statements can be made as to the necessary connection of the two, for the same eruptions occur in several of the metabolic affections.

7. The idiosyncrasy of the patient, and many causative elements, external or internal, nervous, etc., often determine which form of skin disturbance or alteration shall take place.

8. Errors of diet, disorders of digestion, faulty excretion and nervous derangement, which have all along been recognized as causative elements in many diseases of the skin, often find their ultimate expression or mode of action through the faulty metabolism induced thereby.

9. Metabolic errors are exhibited in the excreta from the lungs, skin, intestines and kidneys; and of these, the urine best affords a satisfactory indication, as it represents nearly one-half of the total excreta, and practically all of the nitrogenous and soluble mineral substances, together with about one-half of the water expelled from the system.

10. Complete and minute urinary analysis is a very great aid in discovering metabolic errors, and in establishing proper therapeutic measures for the cure of many diseases of the skin.—(L. DUNCAN BULKLEY, M. D., New York, *Medical Record*, Nov. 26, 1904).

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Original Articles

WHEN SHALL THE LACERATED CERVIX UTERI BE REPAIRED?*

H. WELLINGTON YATES,
Detroit.

That the uterine cervix is both misused and neglected must be taken without argument. Should any good come out of the discussion of a paper written on this subject, the author of it would feel that his efforts in its preparation were fully repaid. What shall follow in these few lines, therefore, will be for the purpose of serving two objects—first and primarily, to elicit a full discussion of the subject matter, and second, to put forth the author's position toward open wounds of the cervix uteri.

Over ninety per cent. of mothers have cervical lacerations at the time of childbirth; a goodly percentage of these minor ones heal spontaneously. The balance, left unrepaired and with the resulting changes, bring on a lowered resistance which is but the proper culture ground for the initiation of any disease.

(1) It is a proven fact that carcinoma is more likely to develop in a cervix that has been torn. Nearly half of all women who die of carcinoma are those who have

suffered from uterine invasion. This is not conclusive that they had lacerated uteri, but since carcinoma is more frequently found among multiparous women who have unrepaired rents in the cervix it should make us seek a remedy to eliminate, if possible, all provocative causes.

Leaving the malignancy factor out of the discussion, uterine cervical injury probably does more to cause subinvolution than any other one thing incident to or consequent upon labor.

(2) For the proper and perfect condition necessary for involution we must have three factors: (a) A firm and continuous contraction of the muscular fibre; (b) a lessened blood supply; (c) aseptic conditions. Now, can any of these be possible in the presence of a laceration of any magnitude? Let us see. An injury of any kind is excitant and calls forth a continued increase of blood to the part so long as repair is imperfect. This general rule is strictly true of the uterus. Here, however, we have the injured surfaces retracted by the physiologic action that the whole organ undergoes in its effort

*Read before the Wayne County Medical Society, October 31, 1904.

to return to normal size; the blood-supply is increased instead of diminished, and in the process of repair a large amount of scar-tissue is thrown out, and this, by virtue of its structure, is an obstruction to the free circulation of blood to the entire lower uterine segment. It is, in a measure, a foreign body, and as such is a menace to human life.

Omitting a general description of the uterus, let us revert for a moment to its blood circulation, its lymphatic condition

forms of pathologic change so familiar to us. The uterus is richly supplied with lymphatics; chain after chain of these little absorbing vessels run in every possible direction, sucking up waste and poison as well as food and nourishment, carrying these products from the immediate field not alone to the large inguinal and sacral glands but to the entire lower abdomen and especially following the ureter to the kidney. (See Fig. 2.)

Suppose there occurs an extensive in-

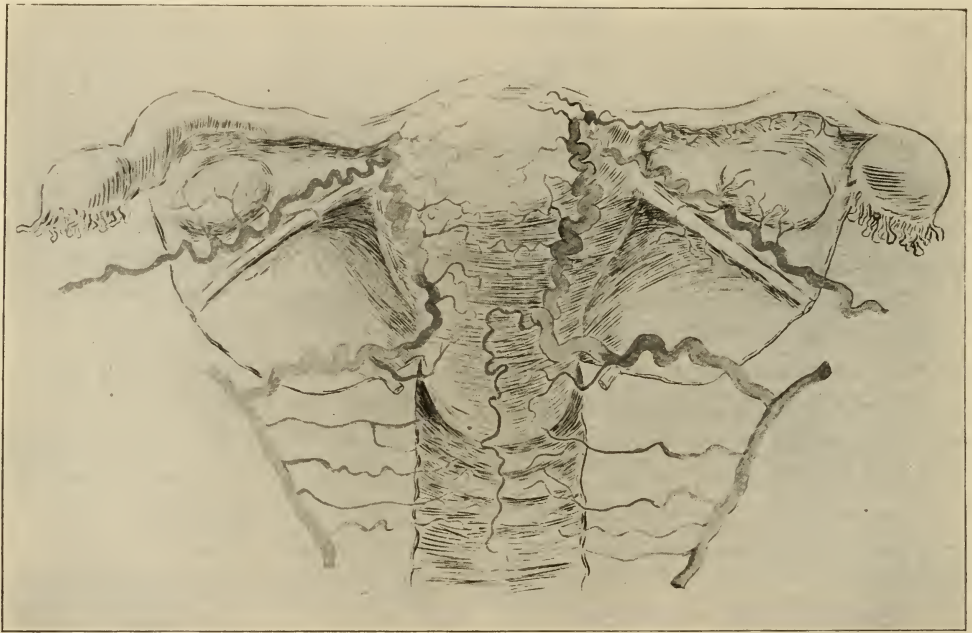


Fig. 1

and nervous supply. The fundus and body are well supplied by the ovarian artery, which is a direct branch of the abdominal aorta; the lower segment is supplied by the uterine artery, a direct branch of the internal iliac. These arteries, coming as they do directly from such important volumes of blood, show how free the circulation should be in a normal organ, and how any obstruction, such as scar-tissue, will of necessity produce chronic congestion with all the resultant

jury of the cervix, and that wound lying open becomes infected, what shall prevent these little vessels from picking up the toxins and scattering their products along the way? Is there any wonder at all that many of the post-mortem cases are followed by many weeks of convalescence, continued low fever, small, rapid pulse and the more attenuated forms of sepsis of which phlegmasia dolens is but one example?

The nerve distribution is just as im-

portant, with its close association with both the pelvic and sacral plexus of the sympathetic and third and fourth sacral nerves of the cerebro-spinal system. (See Fig. 4.)

When we consider that branches more or less direct from this same set of nerves supply the rectum, anus, bladder, clitoris and vagina in front and the lumbar and sacral behind and above, we can not won-

der the constant occipital headaches and despondency which may be but the initiation of a true melancholia?

Pain is not always the worst thing in the world, and so if the cerebro-spinal system does not cry aloud, probably a worse condition may be going on through a perturbed sympathetic system, and instead of pain we have a progressive mal-nutrition, the various forms of

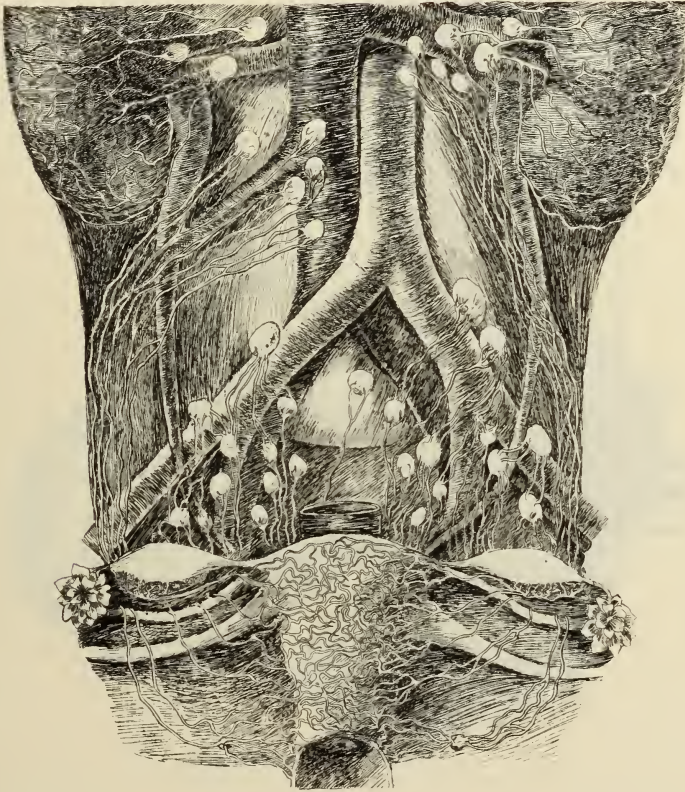


Fig. 2

der that a woman suffering from an un-repaired cervix complains of constipation, this sometimes alternating with diarrhœa or an excessive desire to urinate, a pruritus not controlled by drugs, and a back-ache which only is subdued but not cured by anodynes. Is not this nerve distribution, with its close association with the cerebro-spinal system sufficient to explain

auto-intoxications or palpitations of the heart, stomach disorders, etc., etc.

There is a law common to all surgical operations, that the quicker a wound is united the more probable will union be perfect and the parts be returned to their normal.

With the anatomy of the part as it is, should we neglect the demand for repair

of the recently injured cervix uteri? What is there about it that should make the exception to the general law? Any obstetrician who is capable of doing aseptic midwifery is able to do this. If one is practicing obstetrics who does not minutely carry out the laws of surgical cleanliness he is, of course, unfitted for this work as he also is to care for the lying-in woman, no more or less. The

importance of this kind of obstetrical and surgical cleanliness, so long will they cry out against the primary cervical repair because of infection.

(3) Craig, of Boston, whose paper was read at the New Orleans meeting of the American Medical Association in 1903, made this significant remark: "Surgeons who also practice obstetrics almost invariably get good results from primary

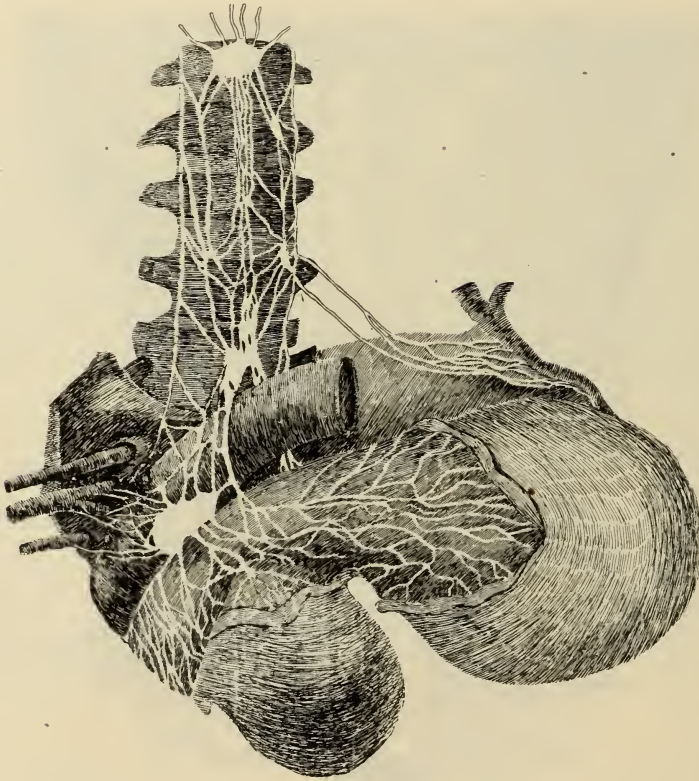


Fig. 3

fear of infection and the application of certain procedures to prevent it are the corner-stones of successful modern surgery. If obstetricians generally made the same preparation for the care of their patients that the surgeon does for his we should have fewer cases of puerperal sepsis. Surgical technique in the lying-in chamber is gravely and shamefully neglected, and until men wake up to the

operations on the cervix." Now this is not because of his surgical manipulation so much as it is that he knows how to get clean and keep clean. Should the surgeon have a corner on the market for cleanliness?

I believe one thing almost essential for perfect work of this kind is to have the patient on a table and not in bed, with good position and good light. Tears of

considerable extent will be found much more frequently than is supposed.

With a tenaculum forcep on the anterior lip and one on the posterior the full extent of these lacerations can be repaired easily. The stitches should not penetrate the mucosa but should be drawn taut on account of the swelling of the organ, and thus prevent the stitches from hanging in ringlets as was observed and

Department of the University of Pennsylvania, usually selects forty-eight hours as the best time. He is the pioneer in this work and, after having followed it up for about seven years, says in his positive and characteristic manner: "It must become general, not only in hospital but also in private practice."

(6) Robert L. Dickinson, of Brooklyn, selects the third, fourth or fifth day as

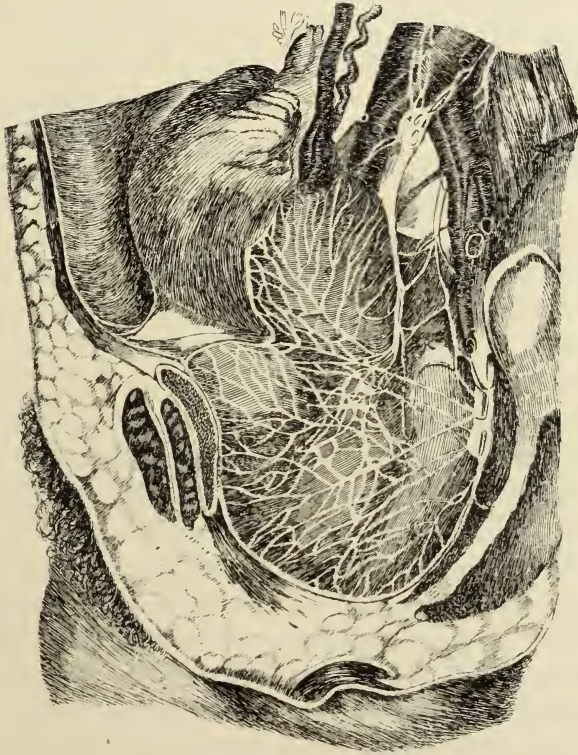


Fig. 4

pointed out by Hirst, of Philadelphia. Seldom are more than three stitches needed on each side.

The time of primary repair is yet an unsettled one. Stricker Coles, Demonstrator of Obstetrics in Jefferson Medical College, closes every laceration of whatever form, immediately after the labor. In the large majority of cases union has been good.

Hirst, who has charge of the Maternity

the best time for repair of all parturient injuries. After having made immediate repair on a few cases and being somewhat bothered on account of blood running down over the field and rendering the work partially uncertain, I have chosen the morning of the second day as a suitable time, and up to the present see no reason for changing this time.

(7) Edward P. Davis, who practices this plan of repair, reported to the Ameri-

can Gynecological Association as follows: "In 84.9 per cent. the operation was successful; in 11.3 per cent. it was moderately successful; and in 3.8 per cent. the operation failed. The percentage of infection was nil.

Primary repair should be done for the following reasons:

1. The uterus is immediately returned to its normal condition, instead of permitting it to pass into a pathologic one.
2. It closes an open wound which lies near an infective field.
3. It shortens convalescence.
4. It assists involution.

5. It obviates the necessity of a secondary operation.

6. It invites a clear conscience to the operator and fewer complaints from the patient.

(1) J. B. Deaver, *Regional Anatomy*, Vol. I.

(2) H. W. Yates, *American Medicine*, December, 1903.

(3) D. H. Craig, *Journal of the American Medical Association*, Oct. 31, 1903.

(4) B. C. Hirst, *American Medicine*, November 29, 1902.

(5) Stricker Coles, *American Journal of Obstetrics*, March, 1904.

(6) R. L. Dickinson, *Annals of Gynecology and Pediatrics*, June, 1904.

(7) Edw. P. Davis, *Annals of Gynecology and Pediatrics*, June, 1904.

CATHERIZATION OF THE URETERS.*

W. T. DODGE,
Big Rapids.

For many years the subject of catheterization of the ureters has attracted the attention of the profession, and since the invention of the Kelly instruments, has been largely used in the case of women. I believe it has not been taken up by the profession at large so generally as it should be and that a possible reason for that fact is the awkward position in which it is necessary to place the woman, the somewhat imperfect means at the command of most physicians for reflecting light into the bladder, and finally a feeling that the procedure is exceedingly difficult. Recently, cystoscopes have been invented that render it possible to view the bladder wall perfectly with the patient in a dorsal position, the bladder distended with a clear solution and the source of

light carried into the bladder by means of a small electric light. These instruments also present the advantages of being adapted to males as well as females. I present to you the newest instrument of this kind—The Kolischer-Schmidt Ureter Cystoscope, which I believe presents features superior to any other on the market. It is of small caliber. Catheterization of both ureters may be effected without removing the instrument from the bladder, and the optical attachment permits a free view of the bladder wall. My personal experience has been almost entirely with the Kelly instruments and in women; and while I admit that I have sometimes found the procedure difficult, and have sometimes failed in individual cases, yet I have on the whole received much satisfaction from this work, and have in many cases relieved infection of single kidneys that

*Read before the Ninth District Medical Society at Traverse City, November 15, 1904.

would otherwise have resulted, eventually, in destruction of the organ.

It is not necessary to urge upon you the advantage, in a given case, of being able to say whether an infection involves one kidney or two for even if the disease is so serious that treatment through the renal catheter is futile, yet an exact determination of the condition of each kidney renders surgical work undertaken with a confidence not otherwise possible. Many cases of cystitis, where the only symptom presented by the patient is that of bladder irritation, will be found to also involve the kidney pelvis and to be curable by ureteral catheterization and irrigation of that cavity. The gonococcus germ is known to frequently invade the bladder, and why may it not also travel up the ureter and infect that canal and the kidney? It has been demonstrated that it frequently does so. The tubercle germ also frequently invades the entire urinary track and its presence may generally be demonstrated, when present, by repeated daily examinations of the urine. In tubercular cases, I have found the greatest difficulty in effecting catheterization. If the bladder wall around the ureter is much thickened, if on palpation through the vagina, the ureters may be felt as hard, cord-like structures and if it is difficult or impossible to insert a catheter into the ureter, tuberculosis should be suspected. In my experience, catheterization, by the Kelly method, does not fit one for the use of the cystoscope with optical attachments which magnify the field of vision. The picture presented through one of these instruments is very vivid, reminding one at first of the appearance of the retina as seen through an ophthalmoscope. The capillaries may be distinctly seen traversing the bladder wall, and considerable prac-

tice should be had with this instrument in the examination of normal bladders before attempting to pass upon the appearance of a diseased one. When brought into view the opening of the ureter may be distinctly seen on account of the lens system magnifying the parts. With the limited experience I have thus far had with this instrument, I confess that it is not easy to bring the mouth of the ureter into view, but those who have become expert in its use claim that it is not at all difficult, in fact far easier than by direct view through the Kelly cystoscope. For some purposes the Kelly method will, I think, always be preferable. In bladder diseases where it is desirable to make direct applications, it can only be done through a cystoscope used with air dilatation. In my work the microscopical and bacteriological examinations have been made by Dr. A. A. Spoor. I have found such examinations necessary to enable me to form an intelligent opinion concerning the diseased condition. In many cases, Dr. Spoor has been able to determine, from the appearance of the pus in the bladder urine, that some of it came from the kidney. He has repeatedly found various pus producing germs, and several times colon bacilli. As illustration of the benefits derived from this line of work, I will briefly report a few cases. One case recently came under observation that I treated in 1895 and I will only mention it here to show that renal infection may be permanently cured by local treatment. I saw the lady first in the Fall of 1895. She presented symptoms of cystitis. Cystoscopy revealed a redness and swelling around the right ureter. Ureteral catheterization obtained urine loaded with pus from that kidney. The kidney pelvis was irrigated with boracic acid solution. The urine from

left kidney was normal. I repeated the procedure several times with the result that the urine became clear and has remained so. No bacteriological examination was made in this case.

In March, 1904, I saw a lady with Dr. B. H. McMullen, of Cadillac, who had sustained two months before a vesicovaginal fistula during a difficult delivery. Spontaneous healing of the fistula had occurred until only a pin hole opening remained. While in apparent perfect health, she was suddenly seized with chills and high fever, with pain in the right side. The urine had all along contained some pus, probably due to contamination of the bladder through the fistula. Dr. McMullen concluded that the formation of cicatricial tissue had produced a stricture of the right ureter and that the chills and fever were therefore of renal origin. He asked me to see her. With some difficulty I introduced the catheter into the right ureter, meeting with a distinct obstruction which yielded to gentle manipulation. A considerable quantity of urine came away at once which contained much pus. The urine obtained from the other kidney was clear. The pus contained staphylococci. Dr. McMullen closed the small fistula, after the catheterization, and we placed the patient in bed, feeling that a difficult and dangerous problem had been successfully met, and that we could reasonably promise our patient a speedy convalescence. Her temperature immediately returned to normal. She passed 24 ounces of urine during the next eighteen hours and had an easy and quiet night. The next morning, while chatting with her nurse, she suddenly complained of feeling "queer," in a few moments became unconscious and died within a few hours. No

post-mortem was held and the cause of death is unknown. The outcome of this case was especially painful to both Dr. McMullen and myself, as the patient was an intimate friend of both. It seemed that the successful outcome of the attempt at ureteral catheterization, in this difficult case, deserved to meet with a better fate than the sudden death of the patient, from some cause not connected with the operation.

Mrs. H. married in January, 1903, consulted me eight months later for a cystitis that had commenced three months after marriage. Three months preceding marriage I had treated her husband for a mild attack of gonorrhœa. He was supposed to have been cured, but microscopical examination of his urine was not made to demonstrate a cure. When the lady first came to me she had large quantities of pus in the urine, micturated every five minutes and suffered much pain. Rapid improvement of the bladder condition occurred under ordinary treatment but a small quantity of pus persisted in the urine, in isolated cells and pus casts. On April 7th, 1904, I catheterized the ureter. The urine from right kidney was found to be normal, while that of the left contained much more pus than did the urine drawn directly from the bladder. Gonococci were demonstrated to be present in the urine drawn directly from the left ureter on several occasions. I irrigated the pelvis of the kidney with boracic acid solution and instilled a dram of 25 per cent. argyrol solution. As the patient could only come occasionally for treatment, it was repeated irregularly and sometimes at long intervals. Such treatment was repeated April 30, May 11 and 17, June 7, 17 and 22, and July 29. After the third treatment, gonococci could not be found

in the urine. The pus rapidly disappeared and October 2, when I last examined her, a mere trace of pus was discovered. She has been entirely free from symptoms since the first irrigation of the kidney pelvis and instillation of argyrol solution. The treatment of this case covered a much longer period of time than would have been necessary had she been able to remain for continuous treatment. During the entire time of treatment, she did all the housework at a large dairy farm, going home several miles immediately after receiving treatment and doing her housework as usual.

The last case I will report, illustrates the difficulties occasionally met with in doing this work and shows that not always can even the most expert succeed in catheterizing the ureters. The patient presented a peculiar and interesting history. For seven years she had suffered from symptoms of cystitis. During this time she had been subjected to curettement several times and to utero-fixation. She had been treated by many physicians and had received the constant advice of her husband, himself a physician. In spite of all this her condition had gradually but surely become worse. In September, 1903, while visiting at my home, I had her urine examined by Dr. Spoor. He gave the opinion that some of the pus came from the kidneys. Later in the year she went to bed and had her bladder irrigated daily for many months. During this time she occasionally had light chills and fever. The treatment did not result in material improvement. In June, 1904, she came to Mercy Hospital and placed herself under my care. At that time the urine contained large quantities of pus. She micturated several times an hour and

at least a dozen times during the night. Every day she had a slight chill and temperature averaged 100 degrees at six P. M., being invariably $98\frac{1}{2}$ degrees in the morning and usually normal except between four and eight P. M. She had a good deal of pain in the bladder during micturition. Bacteriological examination revealed plenty of pus cocci and a large number of colon bacilli. I used the cystoscope and found the bladder wall very much thickened; round the right ureter it was particularly so. Faithful efforts failed to introduce a catheter into the ureter, so I applied a 25 per cent. argyrol solution with cotton applicator to the bladder wall. This procedure was repeated at intervals, the bladder irrigated each day with solution boracic acid and one ounce of 5 per cent. argyrol solution instilled and permitted to remain in the bladder. This treatment quickly improved the condition of the bladder and rendered the patient's condition quite comfortable. For a time the chills were missed and the fever did not recur. The pus became very small in amount and every thing looked very favorable for recovery. The cystoscopic picture also improved very much and the thickened condition around ureters became less. On two other occasions, I attempted to catheterize the right ureter, without success. On the last occasion the catheter penetrated about half an inch, feeling as though it were penetrating hard cicatrical tissue but I could not pass through the obstruction. About September 1, the patient's condition became more serious, the temperature range became higher and she was much weakened by night sweats. I then, after correspondence with Dr. Hunner of Baltimore, had a specimen of her urine examined every

day for a week for tubercle germs. The result was negative. Finally on the 12th of October, at my suggestion the lady went to Baltimore and placed herself under the care of Dr. Howard A. Kelly. She is still there, an inmate of Johns Hopkins Hospital, and of course the history of her case is still incomplete. Dr. Kelly found it impossible to catheterize the right ureter and so opened the organ through the loin, finding the kidney much enlarged and containing eight ounces of pus. The resident gynecologist, Dr. C. T. Burnam, writes me under date of October 29 that differential staining revealed a number of typical tubercle bacilli in the pus obtained from the right kidney. He adds, "This case is certainly an interesting one, especially in view of a long bladder history and then the discovery of a tuberculous kidney. As far as I know, we have never had a case of ascending tuberculosis in a woman. We have not been able to show tubercle bacilli in the bladder urine."

Dr. Kelly writes me that he will as soon as possible catheterize the left ureter and if that kidney is in fairly good condition he will remove the right kidney and ureter. He also informs me that the patient has been afebrile since the operation, has had no more night sweats and is each day gaining strength. He concluded that the right kidney had for some

time been out of function and that the ureter was closed. But little urine has escaped through the wound. To me this case is especially surprising, in the fact that so complete destruction of kidney had occurred, with at no time the development of symptoms that would suggest such a serious disease to be present in such an advanced stage.

*The following letters from Dr. Kelly complete the history of this case to date.

1418 Eutaw Place, Dec. 5, 1904.

Dear Dr. Dodge: I am delighted at last to be able to send you a satisfactory report. Mrs. B.'s condition is constantly improving, and today I succeeded in finding the displaced, distorted orifice of the left meter, which I catheterized, getting a tube full of clear urine. * * * As soon as I get the microscopical report I will notify you. If satisfactory, she will of course remain well by the complete removal of the diseased kidney.

Faithfully yours,

HOWARD A. KELLY.

Dec. 8:

What good news I am able to send you regarding the other kidney! I write you that the inflammation had subsided around the left ureter, and now we find no tubercle bacilli from the urine on that side. The nephrotomy ought to be turned into a nephrectomy. I wish you were nearer, that I might beg you to run down.

Dec. 12:

I did an intercapsular nephrectomy today. Our patient stood the operation very well.

Dec. 22:

I saw Mrs. B. yesterday for the last time, I suppose. She is doing splendidly in every way. It is with great pleasure that I send her back to you restored.

Respective Significance of lesions of the chromatic and achromatic parts of the cytoplasm of the nerve cell.—Lugaro (Riv. di patol. nerv. e ment, 1896 and 1898) maintained that alterations to the chromatic parts do not represent more than a reaction of the cell to a disturbing force and are reparable; while alterations of the achromatic parts are to be regarded as degenerative and irreparable. From experimental pyrexia and poisoning some observers are led to maintain that chromatolysis has little significance as a pathological change; for cells show-

ing many changes had still been able to perform their functions and it has thus been argued that the Nissl bodies can have no marked importance in functional activity. Lugaro, however, holds that while the activity does continue, yet it is less in degree and that the chromatic part fulfils its functions through its chemical and not its morphological structure. The morphological conditions necessary to function consist in the structure of the achromatic substance, and the intensity of function depends on the chromatic.—(*Jour. of Nervous and Mental Diseases*, January, 1905).

CRITICISM OF THE REASONS FOR THE REGENTS' ORDER OF
GRATUITIOUS TREATMENT OF ALL CASES AT
THE UNIVERSITY AND A PRACTICAL
REMEDY SUGGESTED.*

B. D. HARISON,
Sault Ste. Marie.

Naturally my attention has been directed to the action of the Board of Regents of the University of Michigan in requiring of the medical faculty of the University to give gratuitous medical and surgical aid to all persons applying for same, and including those persons who are quite able to pay for such services. I also am aware that this action of the Board of Regents has somewhat disturbed the serenity of the medical atmosphere of the state to a more or less degree, and more especially has it disturbed those members of the profession who reside and practice in Wayne County or counties in the vicinity of Ann Arbor.

At this time I am not prepared to criticize the action of the Board of Regents altogether adversely or in a partisan or unfriendly spirit, from the fact that I recognize that a certain condition exists calling for some action on the part of the Regents, and that an attempt has been made by the Regents to remedy this condition, but whether this remedy is the proper measure or not is a matter for consideration and future action, if necessary.

As I understand the question, and I must state here that I know very little of its details and am anxious to obtain as much light as possible, there is a scarcity in the quantity and also in the quality of the clinical material obtainable at Ann Arbor, due to the fact solely that Ann

Arbor itself is not a city of sufficient size to furnish such material, and the University is dependent upon what clinical material it can obtain from the friends of the University throughout the state. A great deal of the clinical material so obtained is of a class that can afford to pay for treatment, so in order to utilize all the material offered to its fullest extent it has become necessary for the Regents to issue the order involving gratuitous medical and surgical aid in all cases, including cases that are able to pay for such aid. The Regents, therefore, are confronted with the following proposition:

A scarcity of clinical material necessary for the successful teaching of its students by the medical faculty and in addition, the quality of this material is defective.

This proposition in the past has been denied altogether, or modified by certain friends of the University, but is admitted by the Regents' order, and is to my mind conclusive from the fact that I am reliably informed that a very large percentage of the students who matriculate in the medical department of the University continue their courses to the completion of no further than the second year, and then take their credits obtained and complete their courses in other institutions where an abundance of clinical material is assured. In other words, a large percentage of the students obtain the most expensive and also the most important part of their training in our State University and finish their

*Read before the Eight District Medical Society at Saginaw, December 6, 1904.

courses in other universities, and the universities or schools which graduate such students obtain all the credit; whereas, our own university receives none, or very little credit whatever for turning out a well equipped and scientifically trained physician.

Also, m attention has been called recently by Dr. George M. Kober, Dean of the Georgetown University School of Medicine, and Chairman of the Committee on Uniformity of Curricula, Association of American Medical Colleges, who has made a special study of the subject, to the fact that graduates of the medical department of the University of Michigan outclass all other graduates in the examinations of the Army, Navy, and Marine Hospital Service, which examinations call for a greater measure of the scientific in the medical course than the ordinary state board examinations, while in the latter examinations, which call for a greater measure of the practical as compared with the scientific, Ann Arbor graduates fail to the extent of over 6 per cent.

The above result would certainly indicate the truth of the proposition as stated above, especially so as the subjects failed in are those branches which require in the course a certain quality and quantity of clinical material, and which is not obtainable to a sufficient degree at the present time at Ann Arbor.

The proposition, therefore, that a scarcity of clinical material, both in point of quality and quantity exists at Ann Arbor, for the successful teaching of medical students being admitted not only by the Regents and medical faculty but also is proven by the practical testing of the graduation product, and additional practical fact that a very large percentage of students themselves recognize and remedy

this want of clinical material at Ann Arbor by pursuing their clinical courses in other institutions, makes the further discussion of the proposition unnecessary and suggests the discussion rather of the proper remedy, together with the remedy already proposed by the Board of Regents in its order requiring the medical faculty to furnish gratuitous medical and surgical aid to all persons applying for same, including those persons who are quite able to pay for such services.

The remedy already applied by the order of the Regents does not to my mind meet the situation, either as regards the present needs of the department in its lack of suitable clinical material or the necessities of the future. While it may possibly slightly increase for a time the quantity, it will not in any wise favorably affect the quality of clinical material. It is simply a waste of time to discuss the point that patients able to pay for medical services would either make suitable cases for teaching purposes or that such cases, even if suitable, would submit to the status of a normal hospital clinical case. It is useless also to discuss the policy of the state furnishing gratuitous aid to a class of citizens whose necessities do not require it.

Attention may be called, however, to the point that the remedy proposed by the Regents is entirely original, and has not been thought of, and even if thought of has never received any serious consideration from institutions having similar needs, and among others Cornell University. These institutions have, without exception, met the situation by the application of the familiar quotation, "If the mountain will not come to Mohammed, Mohammed must go to the mountain." The furnishing of gratuitous services by

the faculty will not in any degree supply the University with that most important class of all clinical material, emergency, obstetric and acute cases, and which can only be obtained in sufficient quantity and quality in large industrial cities similar to Detroit. Therefore, the only effective and practical remedy possible to meet the necessities of the department of medicine of the University of Michigan caused by the lack of proper clinical material is for the Regents to make the necessary provisions for the removal of a portion, at least, of the clinical course to Detroit, where clinical material of sufficient quality and quantity can be readily obtained.

In connection with the above proposed remedy, the absorption of the Detroit College of Medicine and its fine buildings and equipment by the University has been suggested, and in this connection I may state with authority that the authorities of the Detroit College of Medicine have very magnanimously and generously, informally, offered to give up its charter and hand over to the Board of Regents the college buildings and equipment as a gift to the state, with the simple proviso, only, that the University utilize for its clinical department the buildings and equipment of the college, amounting to a net value of some \$300,000. This offer by the Detroit College of Medicine has been favorably received by members of the medical faculty of the University, and I am authorized by Dr. Vaughan to state that the proposition has his entire approval and support. This generous offer of the Detroit College of Medicine is made simply in the interests of higher medical education in this state, and is entirely unselfish from the fact that at the present time the Detroit College is in a flourish-

ing condition, both as regards its finances and the number and quality of its students.

If this natural and practical, and in a very large measure most fortuous remedy, is accepted by the state (and there is absolutely no reason or obstacle to prevent it) the benefit to be derived by the University is almost incalculable. It will not mean the removal of medical students from the favorable environment of University life at Ann Arbor in all of its various phases. The removal of a portion of the students to Detroit during the clinical period of the course will be more than made up by the additional students gained, and the unexcelled scientific course, together with a large portion of the clinics, will still be given at Ann Arbor.

The magnificent opportunity for an abundance of proper clinical material in connection with the large hospitals in Detroit, with suitable buildings and equipment available at this time, and in addition the opportunity to make necessary additions to the teaching staff of the University and at a nominal cost from a field of qualification and experience which has no superior in this country, needs no further comment from me in order to commend the proposed and available remedy to the Board of Regents.

As I have already pointed out, the University is graduating at the present time physicians who are unexcelled in the scientific portion of the medical course. The additional available clinical opportunities of the course at Detroit would result in the University of Michigan sending forth each year graduates in medicine whose qualifications as a whole will be unexcelled in this or in any other country.

RECENT WORK IN OPHTHALMOLOGY.*

RAY CONNOR,
Detroit.

No epoch making discoveries have marked the year of 1904 in ophthalmology. Progress has nevertheless been made. Thousands of pages have been added to the literature and two new publications have entered the field. Ophthalmology, a new quarterly, owned and published by the medical profession has been added to the relatively long list of special journals and is conducted by the former staff of the *Annals of Ophthalmology*. A Year Book edited by Dr. Jackson also makes its initial bow to the public. The effort has been made to condense into useable shape the 20,000 to 30,000 pages which have appeared in various languages during the preceding year. The name of the editor is a sufficient guarantee that the book will be practical and the first number contains not only a critical review of the most important literature of the year but also a list of the more important original communications.

The hitherto impossible feat of photographing the fundus of the human eye has been accomplished. Thorner, of Berlin, first succeeded in photographing the fundus of a cat's eye by flashlight illumination and later got good reproductions of the human fundus. The pictures are not perfect but are sufficiently good to be of value as records and in demonstrating pathological changes.

The importance of eye strain in causing headache and many other nervous ills has long been understood by ophthalmologists. Gould has earned the thanks

of the profession by insisting in season and out of season on the value of careful refraction. It may be that over statement and the neglect of other possible causes are necessary to bring this fact into the foreground of our consciousness. On the other side of the water, Schoen, of Dresden, emphasizes the importance of errors of refraction in causing not functional complaints but anatomical changes. He considers the careful correction of refractive errors as the best method of treating choroiditis disseminata, cyclitis and glaucoma.

Despite the advances in bacteriology, the diseases of the conjunctiva have still to be classified on a clinical basis. Even such a distinct clinical entity as trachoma has as yet no proven cause. The findings of Müller, of Vienna, have given a fresh stimulus to the study of the bacteriology of trachoma. He obtained an influenza-like bacillus in 59 out of 155 cases. He never found the bacillus except in trachomatous cases and is inclined to regard it as the inciting factor in trachoma. On the other hand, A. Knapp reports bacteriological studies of 120 cases of trachoma in school children from which he concludes:

1. An influenza-like bacillus identical with the Müller "trachoma bacillus" was found present in 8 out of 120 fresh cases of trachoma examined. It was present in the greatest numbers in a case of clinically "acute trachoma."

2. This organism could not be differentiated from the true or pseudo-influenza

*Read before Section of Surgery of Wayne County Medical Society, January 23, 1905.

bacillus, morphologically, culturally, or by animal experimentation.

3. It seems probable that its presence in these cases of trachoma was accidental.

The treatment of vernal catarrh has as a rule been so unsatisfactory that the report of Allport's case is of more than usual interest. The patient had suffered during 7 years in spite of all treatment. X-rays were used in this case. The lids were everted and exposed 2-3 mins. at first and finally 10 mins. Eighty treatments were given in all and the patient experienced complete relief from her symptoms during the entire summer. The growths disappeared and left fine cicatricial tissue behind. The second summer has now passed without any return of the disease so that a cure can fairly enough be claimed.

Seven new cases of Parinaud's conjunctivitis have been reported, five in the *Annales d'Oculistique*, one case from Montreal and one from Boston. This form of conjunctivitis was first described by Parinaud in 1889 who then had had 3 cases. About twenty more cases can now be found in the literature. Very little is said in text-books about this form of conjunctivitis and perhaps it is due to this that more cases are not recognized. Gifford described five cases of his own in 1898 and has had four more since which have not as yet been published. The disease resembles tuberculosis of the conjunctiva more than any other condition but the many animal experiments performed prove conclusively that it is not due to this organism. Parinaud suggested an animal origin for the disease but later cases do not seem to give support to this theory. McCrae found in the Montreal case during 25 days of active treatment, pure cultures of a bacillus resembling

the Klebs-Loeffler bacillus which was not present in the other eye, in the nose, throat or suppurating glands. He concludes he had to deal with a virulent form of the *B. xerosis* or a less toxic than ordinary *B. diphtheriæ*.

As to the value of subconjunctival injections, the profession does not seem to have reached any unity of opinion. C. S. Bull thinks that they do not bring about any more rapid or favorable results than the other methods of treatment which have hitherto been employed in affections of the cornea, uveal tract or retina. L. W. Fox on the other hand while admitting they are of no value in conjunctivitis, holds them to be a great aid in treating sluggish ulcers of the cornea, corneal opacities, interstitial keratitis and cases of vitreous opacities.

Guttman suggests a modification of the Schleich infiltration method for operations on the eye and surrounding structures. He has used this chiefly in cases of trachoma expression. When properly used it is absolutely painless and without danger but has the disadvantage of distorting the tissues to be operated upon. In trachoma, however, it serves to make the granulations prominent and so permits the operation to be done with greater ease and less danger to the healthy conjunctiva.

Of the new drugs which have recently been introduced into ophthalmic practice, none perhaps is more serviceable than dionin, the ethyl-morphin hydrochlorate. 5-10 per cent. aqueous solutions are generally used. Its instillation causes marked vascular injection, with edema and extravasation of lymph but without pain or discomfort. This pronounced reaction lasts but a few hours and is less marked each succeeding day until in 4 or 5 days

it fails to cause any edema or swelling. It possesses profound analgesic power and is hence very useful in severe cases of iritis where it serves not only to lessen the pain but also helps to break up any adhesions which may have formed. It is also used to promote the absorption of capsular opacities, interstitial keratitis, corneal opacities, intraocular hemorrhage and vitreous opacities.

Methyl alcohol poisoning is on the increase. Buller reviews 51 reported cases of which 48 were in the United States. He classifies these as:

1. Mild gastro-intestinal intoxication with recovery.

2. Dizziness, marked gastro-intestinal disturbances, with dimness of vision, terminating in blindness.

3. Sudden overwhelming prostration, ending in coma and death. Most of these cases are middle aged males, on a debauch in which some cheap grade of liquor containing methyl alcohol was consumed. Only seven cases of this series recovered. Casey Wood reports 91 hitherto unpublished cases. In 8 of these blindness followed breathing air contaminated with methyl alcohol fumes. In 62 cases death was not preceded by blindness. The author concludes that in all cases of central scotomata with gastro-intestinal disturbances, methyl alcohol should be suspected.

Some suggestive experiments are reported by Brown Pusey bearing on cataract formation. He found that on immersing a sheep's eye in strong salt solution from $1\frac{1}{2}$ to $2\frac{1}{2}$ hours the lens became cataractous. The strange phenomena of a cataractous lens becoming perfectly transparent could now be produced by re-immersing the eye in distilled water for some hours.

As regards the best cataract operation, little has been added to our knowledge. After experimenting with a large conjunctival flap drawn over the corneal wound to seal it from infection and losing an eye, Gifford concludes that this method is not a sure preventative of infection. He favors a preliminary iridectomy as the safest method we have at present. Wicherkiewicz uses a novel dressing after cataract operation. So-called satin paper is pasted over the eye from brow to cheek with ordinary gum arabic allowing the ball and lids absolute freedom of movement and forming a hollow sealed cavity. No infection was noted in 150 cases and out of 139 cases, the anterior chamber was reformed in 110 on the day of operation.

The problem of glaucoma is still a live one in ophthalmology. Abadie calls attention to certain unrecognized and overlooked forms. He describes three kinds of prodromal attacks which come repeatedly but are separated by periods of complete remission. Sometimes only pain in the eye or neighboring region is present. This comes suddenly and goes away as quickly. No regularity or cause can be made out. These become more frequent and more severe and eventually are transformed into true glaucomatous attacks about which there can be no doubt.

Another prodromal form is characterized by the appearance of colored circles around lights. These at first come at rare intervals but increase in frequency and have no regularity. The visual acuity is not lowered but nothing seems to affect the colors except the instillation of pilocarpin.

The last form of these prodromal attacks is the appearance of misty clouds or

veils over the sight. This comes as irregularly as the other forms, lasts for an hour or two and then disappears leaving the eye as good apparently as before. The instillation of pilocarpin serves to cut short these attacks also.

The importance of these prodromal symptoms lies in the fact that an iridectomy seems to cut short the disease and prevent it ever becoming chronic glaucoma. This operation is not nearly so satisfactory when glaucoma has developed as while it may stop the pain the loss of vision often progresses. The danger of postponing the operation must be very strongly felt both by the patient and the doctor in order to do an iridectomy on an eye apparently so healthy as these are between attacks when the vision may be perfect, fields not at all constricted and only brief attacks of pain, color sensation or misting of vision present.

As is well known, Jonnesco first performed a removal of the superior cervical ganglion for the relief of glaucoma in 1897. In his original paper, 8 cases were reported. Probably 150 cases or more are now to be found in the literature. Notwithstanding this comparatively large number of cases, nothing very decisive can be said to be proven. Almost all cases show temporary improvement. Loring concludes that as to how the operation acts only conflicting theories can be cited. In general, in glaucoma simplex, the tension is reduced in almost all cases generally to normal and may remain so for many months. The vision shows at least temporary improvement in a great majority of cases unless an advanced atrophy makes vision out of the question. Serious after-results that may be said to contraindicate the operation have so far not been demonstrated. The operation then is dis-

tinctly justified and ought to be more often tried as a final resort in glaucoma simplex when, notwithstanding miotics, iridectomy and sclerotomy, the disease progresses steadily toward eventual blindness.

As an aid to the oftentimes difficult task of extirpating the lacrimal sac, Todd suggests the cleansing of the sac and then the injection into it of paraffin (melting at 110°) until the sac is completely filled. This outlines the sac and renders the dissection much easier and more precise.

In the removal of steel from the eye ball, Hirschberg strongly condemns the practice of placing the patient with an injured eye before a giant magnet to see whether he feels pain or the sensation of pulling, in order to diagnose the presence or absence of the steel. He insists that the foreign body should first be diagnosed by means of the sideroscope or X-ray and having been localized, appropriate means taken to remove it. He prefers the hand magnet in such cases to Haab's larger one.

An original system of educating the blind is in operation in Chicago. In three of the public schools in different parts of the city, blind children are received along with the healthy ones. They are first taught the alphabet and a system of reading by a special teacher and then assigned to their proper classes where they take part in all the ordinary school exercises, have the same books, lessons, maps, etc. Their books are printed in the six dot system but contain the same material as those of the seeing students. In this way, they are kept in touch with the world where they must live and not segregated in an artificial life with unfortunates of their own kind.

Radium, when first discovered, was hailed by the lay press as the deliverer of the blind. It has since been studied by London in this aspect. He found it has no effect on an eye which has completely lost the perception of light. The best means as yet found to utilize radium for the partially blind is with a fluorescent screen of barium cyanide which under the action of radium rays emits a brilliant greenish-yellow light while surrounding objects are hardly visible. This affects the periphery of the retina more than the central part. By laying a strip of black paper on the screen, this class of blind people can be made to see and trace lines and gradually read letters on the screen.

It is certainly true that this method gives blind persons indescribable pleasure and makes the reading of raised letters by touch easier and more interesting.

Progress has thus been made at many points along the line. Much has been of a negative character, going over and checking up with new observations the results of earlier workers. While the speciality can perhaps boast of no such intellectual giants as Helmholtz or Donders, there is a large and ever increasing body of careful observers working at many points to advance human knowledge according to their capabilities. One of the practical earnestness of their labors is the ever diminishing number of our blind.

CHRONIC BRIGHT'S DISEASE AND PREGNANCY.

W. H. SAWYER,
Hillsdale.

An acute nephritis occurring during pregnancy must be regarded as an expression of a toxæmia, as there is no primary causal relation between diseases of the kidneys and puerperal eclampsia. It has long been accepted that eclampsia may occur with the eliminative organs unimpaired, and that it is not apoplectic, epileptic or hysterical, but due to the over production of toxins. Painsstaking investigation has not settled what the poison is, nor where or how produced. The lesion of the kidneys, liver and other organs is not constant or essential.

It is probable that the increased cell activity and metabolism overtaxes the excretory organs eventually impairing the power of elimination and causing saturation with toxic products, rendering the nerve centers acutely sensitive to the shock of peripheral irritation. Why the balance between metabolism and elimination is occasionally lost is yet to be determined, and until this problem can be solved preventive medicine is handicapped.

Pregnancy as a complication in chronic Bright's disease is much less serious than an acute nephritis occurring during gestation. While the insufficiency due to a chronic lesion increases the liability to toxæmia, yet eclampsia is not usual in such cases. Lusk and other writers say

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convulsions are rare in cases in which chronic Bright's disease existed previous to pregnancy, and give the ratio as about one to forty and the ratio in acute nephritis as about one to five. The percentage of still births is large and the general advice is to terminate pregnancy in these cases because of this large infant mortality and the severe strain to which the kidneys are subjected during this period.

My experience covers a small number of cases in which chronic Bright's disease was known to exist previous to the time of gestation, yet the result in these cases was so satisfactory that I should be loath to terminate pregnancy unless symptoms of toxæmia were pronounced. In six cases occurring in my practice all of the mothers endured labor without symptoms of acute toxæmia and without convulsions. Five of the patients have survived labor from one to six years. The sixth died two years after the puerperium. In none of the cases has it been possible to attribute an exacerbation of the kidney lesion to the pregnant ordeal. All of these patients were primiparæ except one, and this one I attended only in her second labor, and do not know whether she passed twice through labor during the existence of the chronic kidney lesion. In this number the infant mortality was but

one, that being still born. There were no complications of the lying-in period except milk leg, and but two of the mothers were able to nurse the babes.

The object of this short paper is only to call attention to and emphasize the advantage of early determining in all cases of pregnancy whether a chronic kidney lesion exists. This can only be done by an examination of the urine previous to or early in gestation. A nephritis from toxæmia during the early months is very unusual, and the finding of a kidney insufficiency could, with reasonable certainty, be attributed to a chronic disease of these organs.

The lessened gravity of the prognosis, and the relief from the anticipation of so serious a crisis as childbed convulsions, and the advantage of early prophylactic treatment abundantly compensates for the extra care and attention to the child-bearing woman.

The emptying of the uterus is only warranted in chronic Bright's disease when in spite of treatment there is an increasing intoxication or death of the fœtus in utero.

A milk diet, frequent hot baths, good hygienic management, and the use of one of the saline mineral waters, seem to meet the indications and do all that can be done in the way of prophylaxis.

The Influence of Suprarenal Extract (Conclusions).—1. Injections (intravenous and subcutaneous) of suprarenal extract retard the processes of absorption and transudation.

2. It is assumed that the suprarenal extract increases the toxicity of the protoplasm surrounding the pores of the endothelia of the capillaries, thereby reducing the facility for the interchange between the blood and the tissue fluid.—(MELTZER and AUER, *The American Journal of the Medical Sciences*, January, 1905.)

Treatment of Whooping-Cough—L. Itz-Kowitz uses the following mixture: naphthalin, 180 parts; powdered camphor, 20 parts; essence of eucalyptus and terebinthine, of each 3 parts. This preparation is mixed with boiling water and the patient is so placed that he breathes its vapor for one hour a day. Mild cases were cured in three to four weeks; severe ones in four to six weeks.—(*Allegemeine Wiener Medicinische Zeitung*, 1904, No. 30.)

HYSTERIA IN ITS RELATION TO GYNECOLOGY
AND OBSTETRICS.*GEORGE F. BUTLER,
Chicago, Ill.

Hysteria is an unstable state of nervous equilibrium in the genesis of whose manifestations, everything occurs as if the psychic and the somatic phenomena were two manifestations of the same biologic facts.

The pains and physical disorders of hysteria, far from being capricious, are traceable to an origin—some incident, some pain, some action, which was associated with an acute momentary psychic agony. The process of conversion is an involuntary escape from an intolerable emotion comparable to the physical pain sometimes sought for in intense grief. The patient wins relief from the tortured emotion, though at the expense of psychic abnormality, of a more or less divided state of consciousness and of physical pain, or else anesthesia. This condition may develop on a hitherto sound organism, or it may appear in congenital instability or on a neurosis due to autotoxæmia, traumatism, insolation or allied conditions.

The tendency of the condition to center around the genitalia arises from the inclination of psychic perturbations to collect there since the sexual system more than any other exerts emotional power over the individual, his morals, as well as social questions. The vicious circle of pathology is nowhere better illustrated than in these relations between hysteria

and the genitalia. The latter may be so disturbed as to upset the equilibrium of the nervous system in such a way that they rise into consciousness, and by removing inhibitions on nervous explosions produce temporary, albeit lengthy, hysteroid states.

Removal of the genital disorder will not do away with these consequences, which, hence, require separate treatment. Removal of the local disorder, however, will remove a predisposition, and continuous etiologic factors, which unremoved would produce a permanent hysteric constitution.

The difference between these two states is excellently illustrated by the contrast between a distended bladder still able to contract normally on its contents when an opportunity of so doing is afforded, and the bladder in which distention has been so prolonged that nervous control has been lost and spontaneous expulsion has become impossible. The first condition corresponds to the constitution which, while hysteroid, is healthy enough to react normally, despite psychic lesions; the second, to a state in which, owing to the prolonged stress of psychic traumatism and nervous results, definite hysteria has arisen. The one state is still healthy, though abnormal, the other is a pronounced morbidity. Either of these two states may be complicated by other conditions which in one case tends to make temporary conditions permanent, and in the other produce aggravations of the unstable equilibrium by organic complications.

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The various morbid conditions of the genitalia, cervic laceration, perineal laceration, retroflexions, retroversions, etc., as well as rectal disorders may all produce profound neurasthenia, which under a hysteroid predisposition readily becomes an acquired hysteric constitution of intractable type. Moreover, the emotional and nervous explosions which result in both the hysteric and hysteroid states, generally are attended by such disturbances of innervation of nutrition, elimination and oxidation as to cause auto-intoxication. For example, the liver has been so affected by hysteria through disturbance of cerebro-spinal control that gall-stone colic has been mimicked by an hysteric paroxysm.

Gaubius, centuries ago, found that the natural properties of the body fluids may be thus altered so that, with astonishing rapidity the bland becomes acrid, and the salubrious hurtful or even virulent. The hysteric, in a passion has been known to vomit bile of every color and acidity. Carpenter found thirty years ago, that "melancholia and jealousy have a tendency to increase the quantity and to vitiate the quality of the biliary fluid." Indulgence of these feelings produces a decidedly morbid effect by disordering the digestive process and thus reacts upon the nervous system by impairing its healthy nutrition. The influence of sudden fright in checking bile secretion and thus occasioning jaundice was recognized by Bichat. Emotional jaundice like emotional diarrhoea may be caused by abnormal action of the muscular coat of the gall duct and the intestine.

Jaundice following mental shock or long continued anxiety or grief is, as Budd remarks, often unattended by any alarming symptoms, but occasionally after

it has existed for some time without marked cerebral symptoms, delirium gravis comes on which proves rapidly fatal. After death, in such cases, the liver is sometimes found completely disorganized. Some virulent poison, according to Budd, is thus generated in the liver, which deranges, and then diseases the brain, and after death come softening and disorganization of the liver itself. Wilson Philip claims that depression of mind, if protracted, alters the structure of the liver.

A case is recorded of an English officer who was forced to sail for India without his wife and without even bidding her farewell. On hearing of his departure she almost immediately became yellow, took to her bed, refused food and medicine and died in a very few weeks. Anthony Todd Thompson observed the case of a young man, who having a musket pointed at his breast became suddenly deeply jaundiced for which he was taken to a hospital and died. According to Murchison there is good evidence that nervous agencies not only cause derangement but cure disease of the liver. Acute atrophy in which the secreting cells are rapidly disintegrated and the function of the organ arrested appear in many instances to have a purely nervous origin. Very often the first symptoms of the disease have occurred immediately after a severe fright or an outburst of passion in a person previously healthy. Many observations have satisfied him that extrusion of gall stones from the gall bladder as well as their formation may be traced to nervous agency. He has repeatedly known attacks of biliary colic from gall stones excited by some sudden emotion.

What is true of the liver is equally true of the supra-renals, and pancreas, the heart, and circulatory apparatus, of the

nasopharynx, larynx and lungs, of the uterus and ovaries, of the kidneys, bladder, intestines and skin. Hysteric hæmoptysis is cognate to stigmatization, blistering by suggestion, blue edema, angio-neurotic edema, etc. Hysteric pigmentation resultin^g from nerve disorder of the supra-renals simulates Addison's disease. The material basis of these, to some extent, organic changes, is readily understood when the relations of the trophic nerves to vaso-motor disturbances, and the relations of the latter to emotional perturbations are remembered. The results of disease must also be taken into account. More than a quarter of a century ago organic changes in the spinal cord were shown to be the result, not the cause, of the hysteric contractures and paralyses.

The two phases of the pathologic vicious circle are present with peculiar potency in hysteria because of its conjoined psychic and somatic manifestations of the same biologic fact. The old theory of the "womb" origin of hysteria led to pelvic obsessions not only on the part of the patient, but likewise on the part of gynecologists, producing a tremendous abuse against which gynecologists like T. A. Emmet and Goodell, and later, surgeons like Senn, protested. The greatest blow to these abuses was given by Angelucci and Pierracini who on analyzing 109 cases of allied hysteria treated surgically reported in America, Australia and Europe, found but 17 in which benefit had been obtained. In nine of these there were surgical reasons for removal of the organs and many cases were not true hysteria. The hysteric possesses great suggestibility, and counterfeit operations have as much effect as the real.

An operation factor to which J. W. White, of Philadelphia, years ago, called attention anew, is the constitutional effect of the operation *per se* irrespective of its seat or nature. This element plays a large temporary part in all cases and is peculiarly apt to influence hysterics from their suggestibility. Taking into account the two-fold nature of hysteria, and accepting likewise the distinction between hysteroid states and the hysteric constitution (that is between the potential and the developed hysteric) taking also into account the vicious pathologic circle, peculiarly potent in hysteria because of its occasional intense local manifestations which when produced aggravate the constitutional disorder, the complex relations of gynecology and hysteria are evident. That gynecologic treatment is necessary sometimes even in hysteric pelvic diseases not only from the local conditions, but likewise for its constitutional effects is clear. That the local gynecologic procedures alone have their psychic effects, and sometimes very disastrous effects, is certain. The disastrous somatic results of oophorectomy need now no demonstration, but these are not the only evil effects of the operation. A psychic suspicious irritability with depressing obsessions of being unsexed results, and is a fertile evil of chronic hysteric insanity which often passes into paranoia of the dangerous persecutory type. Undue puttering over the genitalia moreover, as Goodell has shown, creates a pelvic obsession which makes an otherwise quasi-normal hysteroid a "womb crank."

Gynecologists are not the worst offenders in this "spot specialism" as it has been designated. The evil psychic influence of cylinder quacks and eyestrain doctrinaires has been as great if not greater than that

of the gynecologists, but the somatic disturbance was somewhat less while resultant neglect of actually indicated surgical procedure was much greater.

Another specialty has entered the gynecologic domain. The nose seems destined to be the womb Mecca of the surgical future, since it has much closer relation to hysteria than to the eye. This is due to nasal relations to menstruation. From the earliest times menstruation has been held to favor hysteria. Landowzy has cited a number of cases of hysteria during healthy menstruation, while Ball maintains that hysteria shows its true character during menstruation. When an irritation to the nasal mucous membrane fails for some reason to liberate the sneezing reflex, a feeling of excitement and tension arises. This excitement not being able to stream out over other motor channels now spreads itself over the brain, inhibiting other activities. In the highest spheres of human activity may be seen the same process. The relation of the nose to the genitalia involves more than the psychic element here suggested. The sexual disturbance produced by arrest of respiration points to a somatic element. Laycock found that in women love for musk and perfumes is related to voluptu, an observation corroborated by Coloquet. A playful attempt to throttle a woman by her lover is often felt by her to be pleasurable though the sexual side be not obvious. "In one case a woman indifferent to coitus had a longing to be throttled, and did anything to have her neck squeezed by her lover until her eyelids bulged." The strangling element associated with the *globus hystericus* is related to these phenomena as well as is eroticism due to nasal and laryngeal disorders of the erectile tissue of the nose. As Mackenzie, of Bal-

timore, has shown, the old associations of olfaction and voluptu have continued this as an erogenous zone, even though desire produced by olfactory association has been largely replaced in man by desire from visual association. The extent to which olfaction exerts an influence in this direction on man has been, however, much underestimated.

Fliess, as long ago as 1897, read a paper arising from Mackenzie's suggestion before the Berlin Obstetrical Society in which he pointed out that there was a dysmenorrhoea dependent on changes in the nose and curable by treatment of these.

His results were corroborated by Nas-suer and Linder, of Munich, and Ries, of Chicago, who found that pain continuing after the flow was cured by nasal cocaineization even in cases where the menorrhagia had resisted operative procedures.

The results obtained by Fliess' methods through which hysteric suggestibility was excluded are further corroborated and cleared up as to the naso-genital relations in reports made of cases in which emotionally nervous disturbance resulted from turbinate disorder which required both rhinologic and constitutional treatment. Here the vicious circle element is at once apparent. Certain of these cases display a local genital state first, then the nasal disorders whence the "catarrh" of the sexual neurasthenic) then the sexo-nervous explosions which do not rise into consciousness but create nerve perturbations with nerve fatigue and resultant hysteroid, or if on the proper constitution, hysteric state. The phenomena of the sneezing reflex are intensified. The influence of hysteroid states and the hysteric constitution in these relations of olfaction and the reproductive apparatus is apparent

in the anosmia of oophorectomy and the menopause and in olfactory hyperaesthesias and paraesthesias of hysteria very early recognized in therapeutics.

Arstaens, accepting the view of Hinnocrates that hysteria was a suffocation of the womb, finds that the "womb delights in fragrant smells and advances towards them. It has an aversion to fetid smells and flies from them. It is an animal within an animal." He advises for this reason application of fetid odors to the nose and rubbing fragrant ointment around the sexual parts. This treatment as Havelock Ellis remarks, furnishes another instance of the continuity of therapeutic methods during all changes of theory. From the earliest to the latest times drugs of unpleasant odor like assafetida, valerian, etc., have always been used in hysteria. Medicine today, finds assafetida, valerian, sumbul, etc., powerful uterine sedatives. In popular or scatologic medicine a still more potent influence was ascribed to stench as Kiernan pointed out to the Chicago Academy of Medicine more than five years ago. Dr. Smollet, in Humphrey Clinker, depicts a typical hysteric servant with marked eroticism, grand hysteria, *globus hystericus*, etc., who coming to Edinburg consoles herself for the dejecta being thrown in the streets by the beneficent effects of the odor.

The fact that during hysteric paroxysms and preceding menstruation, odors both pleasant and unpleasant emitted by women indicate a physiologic phase of this naso-genital relation. Nasal turgescence with resultant coryza is, in women, often relieved by masturbation or menstruation.

Such influence of the pelvic organs on the nose demonstrates the error of neglecting gynecologic treatment when the

nasal origin seems dominant, just as the reverse obtains where the pelvic element is most apparent.

The secondary results in the autotoxic neurasthenia require peculiar treatment, since very often such treatments cause disappearance of all symptoms despite the continuance of their seeming primary causes. Treatment of these last is imperatively demanded however, as they constitute a continuing predisposition. Whether they should be treated first, or as part of the nervo-autotoxic treatment must be determined by the erethism of the patient. Gynecologic treatment will increase this in most instances, and tends to create a pelvic obsession. Nasal treatment will lessen this erethism and hence lay the foundation for treatment. Under autotoxic states, excretions through the nasal mucous membrane often increases erethism, hence combinations of elimination and nasal sedation seem indicated. Cocainization of the nasal mucous membrane should not be done here without elimination. Camphor monobromate internally will aid the anaphrodisiac effect of the nasal treatment and will quiet the hysteric circulatory disturbance accompanying the *paradoxia sexualis* of hysteric erethism. This *paradoxia* is a physical, sexual rigidity with intense sexual preoccupations evincing itself in mixoscopia which is shocked at any *normal* ethical sexual relation. As a disturbing factor this is peculiarly potent in hysteria and causes pelvic and olfactory erethism. Physical pelvic and olfactory consequences result from this hysteric mental state and increase it.

Hysteroid manifestations, and seemingly true hysteria often proceed from unequal development of the ovaries and uterus during the stress of puberty and

adolescence, under that law of economy of growth which compels the struggle for existence between the organs for assimilable nutriment. Failure of the ovaries to obtain their share results in undue uterine development. Failure of the uterus to develop beyond the infantile state results in disproportionate development of the ovaries. Either results in hysteric or hysteroid conditions with either hyperæsthetic or paræsthetic erethism. In either case the treatment of the pelvic organs, including electrotherapy, combined with proper "rest" treatment, inclusive of treatment of autointoxication leads to properly balanced development of the reproductive system in all its somatic and psychic relations. What would be a typical hysteric often taking the harlot or sexually anomalous direction becomes a normal, equably balanced woman, neither a shrew nor a harlot nor

"Too bright and good
For human nature's daily food."

Hysteria, in connection with obstetrics, involves many problems of internal medicine, neurology and psychiatry, not much discussed because the essential elements are ignored. Pregnancy is looked upon by the mass of practitioners as a purely normal process despite the undeniably frequent pathologic results which flow from it. "Pathologic," as Virchow says, "does not necessarily mean harmful; it does not indicate disease. Disease in Greek is *nosos* and it is nosology that is concerned with disease. Every departure from the physiological norm previously existing is a pathologic event." So far as the mother is concerned, pregnancy is a pathologic disturbance of the balance previously existing in the organism.

In consequence, nutrition and assimilation are increased while elimination is decreased. In pregnancy, therefore, as E. S. Talbot remarks, occurs an autoin-

toxication which may express itself in major phenomena like eclampsia and minor phenomena like the destruction of teeth. This pathologic disturbance of balance causes, under the struggle for existence between organs, a conflict of physiologic processes. The mental and nervous state of an pregnant woman borders on the hysteroid. The "longings" and excessive emotionalism, "pressure," neuroses, nerve tire, etc., of pregnancy while part of the necessary consequences of reproductive processes are still, so far as the woman is concerned, a departure from her normal state.

If there be a slight defect in physiologic balance prior to pregnancy this defect will be intensified by the pregnancy and may imitate a hysteric constitution, or a paranoiac defect, or, starting with the risings in consciousness from the subconscious like the "longings," imperative conceptions, etc., of pregnancy, degenerative obsessions may supervene.

While insanity in *puerpero* and *ex lactatio* are generally of good prognosis, it depends upon the constitution affected; in markedly degenerative constitutions these pass into paranoia, chronic hysteria, insanity, or periodical insanity, or they imitate grave hysteria even in constitutions where, as already pointed out, there has been previously but a slight defect of physiologic balance.

The indications are prophylactic, based on the treatment of pregnancy as a nerve tire with increased nutrition and assimilation, and decreased elimination. As nerve tire produces nerve waste, the most toxic element in autointoxication, prophylaxis, or prevention of this condition is seriously indicated. Balneotherapy and other forms of hydrotherapy as well as proper dietetics, and nervines, are particularly indicated.

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FEBRUARY, 1905

Editorial

THE FREE MEDICAL SERVICE OF THE "WELL-TO-DO" IN UNI- VERSITY OF MICHIGAN HOSPITALS.

Many mooted problems are present in hospital management. Usually all connected therewith, except the doctor, receive a pecuniary compensation. Yet his work makes the hospital's reputation, and his sympathy and moral support its final success.

The prosperity and very existence of the medical profession rest on the fees its members receive from the "well-to-do," both in hospital and private practice,—hence these should pay a reasonable fee to the doctor rendering them service.

Recent events have made this a live question in Michigan. Through its Regents, Michigan University commands its medical faculty to treat, free, all who have paid their hospital dues in advance, ignoring the financial ability of the patient.

Yet the hospital is not for the poor, as a poor person cannot pay seven dollars a week, plus transportation to and from his home, and so is refused admission to the University hospitals. These are for the "well-to-do" of every grade up to multi-millionaires. The Regents' order forbids asking a fee of these, so that we

have the spectacle of a hospital rejecting remuneration for medical service rendered its "well-to-do" inmates.

Unquestionably this order is based on the belief that only thus can adequate material be secured for clinical instruction. Hence it is pertinent to inquire whether this belief rests on fact? Is there no other way to fill the hospitals with clinical material? Must this be enticed from the paying practice of old graduates of the University, and others, by offering free medical service? Why not gather it from non-paying medical practice?

There is not a hamlet in Michigan that does not contain sick people, utterly unable to pay the admission fee of the University hospitals, nurses or doctors. Together they would suffice to keep the hospitals crowded to their fullest capacity. Their friends, cities, towns, and doctors would gladly send them to the University, provided it boarded and nursed as well as doctored free.

But the Regents say they have no funds to conduct a free hospital. True, but have they ever asked of the Legislature funds for this purpose? A State which spends immense sums for the maintenance of its incurable poor, insane, epileptic, is quite unlikely to refuse the aid needed to treat its curable sick poor. A State which lavishly supports a great University, is unlikely to refuse the maintenance of a clinical hospital for the poor and a vital part of its medical school, because, while educating doctors, it restores the sick poor to the ranks of self-supporting citizens.

If fairly laid before the Legislature, funds for a free University Hospital would be secured with less difficulty than regular appropriations. With more or less reason, Michigan physicians complain that free medical service of the "well-to-

do" sick at Ann Arbor disturbs the normal relations of the people in the following particulars:

First. As all patients received at Ann Arbor could pay their doctors a minimum—and some the maximum—fee, the aggregate of all, represents the profession's actual loss therefrom. That this sum must be considerable, the Regents prove by forbidding its faculty to ask or receive fees from hospital patients. Farther, before this edict was issued, some of the faculty are known to have collected very respectable incomes from these same patients. The only fault then found was that their fees were too small. A collective investigation of observations made by each doctor in the State during a definite period, would furnish more exact data on which to base an estimate of the actual loss in the total income of the entire profession during that period. But enough is known to warrant the belief that this loss aggregates many thousands of dollars annually.

Second. Those who have had free medical service at the University hospitals, naturally tell their friends of the financial "snap" there offered the "well-to-do" sick. These may not go to the hospitals, but when discussing with their home doctor the price of a needed operation, or the investigation of a doubtful case, they are likely to speak thus: "Doctor, I can get this operation done by a University professor—quite as competent as you—by paying transportation and seven dollars per week at the hospital. If you will be content with this you can have the case." Others do not say this, but kick if the doctor charges more. In short, the home doctor must lower the normal price of his service to the equivalent of board and car fare, or lose the

job. Several such experiences teach him to accept the inevitable, and meet the University hospital competition.

Third. Even a careless observer notes that the esteem given a worker rises or falls with the price paid for his work; hence, when a doctor gets only the price of unskilled labor he drops in public esteem, and fails to command the respect due a doctor—a respect inseparable from his best work.

Fourth. The people also suffer in many directions. When the "well-to-do" accept medical service without compensation they gradually degenerate to that mental condition known as "pauperism"—able to help themselves, but unwilling. With others a spirit of "graft" results. From taking doctors' services without paying therefor is not far from taking other people's labor, and other people's possessions without compensation.

Fifth. Men near starvation are often forced into the ranks of those who war on society's best interests; who shall say how many doctors the free medical service of the "well-to-do" at the University hospitals have driven into outlawry?

Sixth. A good mother never forgets her children, young or old. The infant at her breast is not nourished by needless exactions from a son struggling for an honorable record. Why should the University feed her students on the life blood of her graduates?

Seventh. Underbidding for business ranks low among the best merchants, because it portends future disaster; for the same reason, underbidding by hospitals or individuals has created an atmosphere antagonistic to their highest usefulness. That shrewd business men like the Regents should order their hospitals to underbid physicians in the care of the

"well-to-do" sick, indicates a failure to grasp the situation.

Eighth. Modern medical practice demands an equipment beyond the wildest dreams of half a century ago. Without it the doctor is unable to serve his patients in an "up-to-date" manner. In so far as free treatment of the "well-to-do" at the University hospitals cripples his power to secure and sustain this equipment, it damages the sick whom he serves and the community in which he lives.

These are but samples of the ways by which "the free medical service" of the "well-to-do" at the University hospital, tends to disrupt those relations between profession and laity, necessary to the best evolution of the entire people.

That these relations may assume their natural condition, it is suggested that:

1. The Regents ask the Legislature for the money needed to support the hospitals, just as they ask money for other laboratories as the anatomical, chemical, pathological, etc.

2. That the hospitals be absolutely free, on the same terms to all the sick poor in the State (by poor is meant those unable to pay board, nurse or doctor) and that no others be admitted.

3. There is no objection to a separate clinical laboratory for the sick "well-to-do," who shall pay for accommodations, and medical service, rates similar to those of private hospitals, on condition that they consent to be used as in teaching and scientific study and that the income from professional service be credited to the clinical laboratory fund.

4. That in all ways the clinical laboratory idea of hospitals be made operative. Thus cases should be selected, by the same business methods as are cadavers for the anatomical laboratory or appar-

atus and chemical for the chemical laboratory. All laboratory supplies are expensive, and so purchases should not greatly exceed actual needs, or be useless in quality. If twenty cataracts suffice for teaching it were a waste to admit one hundred and twenty during a single year.

5. That in event of overcrowding, preference be given cases most valuable for clinical teaching and scientific research.

6. Rare cases of great importance for teaching (if patients are willing) may be kept so long as the Medical Faculty deems wise.

7. That the State Society Committee on Legislation and Public Policy, formulate a working plan, for securing the Legislation to enable the Regents to make the desired changes in the University hospitals and execute the same.

SUMMARY.

1. The Regents of Michigan University compel its Medical Faculty to treat all admitted to the University hospital without fee for medical service.

2. As all admitted are able to advance at least seven dollars per week, plus transportation, they could have paid their home doctor something and some full fees.

3. Michigan physicians claim that this free medical service to the "well-to-do" disturbs their normal relation with the people in many ways as:

- A. The profession loses the fees which patients would have paid home doctors.

- B. It cannot collect normal fees from home patients because of University hospital competition.

- C. Its diminished income lowers it in the esteem and respect of those who rank men according to their incomes; tempts to disreputable practices, and makes it impossible to sustain an equipment for managing intricate cases.

D. It demoralizes the people by teaching them to depend upon others while able to help themselves, and cultivates the habit of "graft."

To remedy this state of things it is suggested:

That the Regents place the hospitals on the same basis as other laboratories of the medical school.

That the hospitals admit only those unable to pay either board, nursing or professional service, and

That the Legislature be asked the funds needed for their support.

That the State Medical Society Committee on Legislation and Public Policy secure the legislative changes needed to provide the needed funds.

LEARTUS CONNOR.

MEDICAL DEFENSE.

The first feasible plan for co-operative medical defense ever formulated has been inaugurated by the Wayne County Medical Society and is receiving hearty support. The plan embodies an organization, called the Defense League composed of those members of the Medical Society who join the League and contribute their annual quota to its support. A well known firm of attorneys have been chosen who for a fixed retainer fee agree to undertake the defense of every member up to the point of actual trial in court for which service an addition per diem charge is made. Inasmuch as most charges of malpractice are but threats of blackmail for the purpose of evading payment of the doctor bill it is believed that annual dues of five dollars from each member of the League will provide ample funds for the defense of the rare case which comes to

trial and allow the accumulation of a substantial surplus as an emergency fund. The League is designed to be purely a co-operative affair managed by, and for the benefit of, its members. It will give absolute protection, so far as a fighting defense protects, against the ever-present menace of the practice of medicine, the threat of suit for malpractice. That a fighting defense constitutes adequate protection is proven by the fact that very rarely has a judgment been obtained against a physician in this state for malpractice even though the attorneys defending were incompetent or inexperienced.

The attorneys of the Defense League will become the experts of Michigan in this field of legal knowledge and their experience with an organization and money at their back will have tremendous influence in preventing this kind of attack upon physicians.

The funds of the League are strongly safeguarded and will always remain the property of the individual contributors instead of swelling the dividends of some insurance company.

There can be no question but that the profession should protect itself against this growing menace, and the time will perhaps come when the State Society can safely undertake this work although the large territory to be covered by a state organization introduces certain financial uncertainties foreign to a compact body like a county society where all circuit court trials take place at the county seat and yet the success of a county society in this field of professional endeavor may encourage the State Society to undertake the work.

Members of the Wayne County Medical Society are extremely fortunate in

having this opportunity to protect each other by a small annual contribution to a fund which is their own, is absolutely safeguarded and instantly available in the defense of any man threatened with suit.

Since the insurance companies began writing this form of policy over five thousand dollars have been taken from the pockets of Wayne County physicians without the return of a single dollar in actual defense of any contributor. Just how effective this form of protection has been in preventing suits it is impossible to say but no better argument can be advanced in favor of the establishment of our own fund and the feasibility of the plan of the League than the above facts. Certainly the League will be more effective in preventing suits than an outside insurance company because of the cohesion of its members and if it has the financial support of the profession and no more trial cases than the average for 20 years past it is but a matter of a very few years before the annual dues will be materially reduced, because a large percentage of the present dues will remain on deposit unexpended.

No man now insured should hesitate a second between the protection of the League and that of his insurance policy and every other practitioner, young or old, who has felt unwilling to pay the considerable sum asked by insurance companies should welcome the opportunity to become a shareholder in a mutual co-operative fund which is under his eyes constantly and can be used only for the benefit of himself and his fellow members of the League.

FRANK BURR TIBBALS.

PORTLAND MEETING.

F. W. Robbins, of Detroit, appointed committee on transportation to Portland July next, has arranged for the members of the A. M. A. and their friends from Michigan the most delightful itinerary to be found on this continent. It is believed that it is so attracting that two car loads of physicians with wives and friends will leave Michigan for three weeks of pleasure. In short it is the plan for the Michigan party to go together by way of the Canadian Pacific R. R. to Portland and from this point the party will break up and each one may return as he desires and when he desires. The round trip rate of \$56.00 from Chicago is a low one when one considers that for this he can go through the most beautiful scenery in Canada and returning can stop at Salt Lake City, Glenwood Springs, Colorado Springs and other places that he may desire in Colorado. The following is the itinerary:

Leave all Michigan points on morning trains all of which arrive in Chicago by or before five o'clock P. M.

Leave Chicago in special palace sleeping cars accompanied by Buffet, Library Car, Dining car, etc., 5.45 P. M., C. R. I. & P. Ry.

Arrive St. Paul 8:00 A. M.

Leave St. Paul on Imperial Limited of the Canadian Pacific Ry. at 9:05 A. M., accompanied by Dining Car.

After leaving St. Paul the great agricultural district of Minnesota, North Dakota, Assinaboia and Alberta are passed and then the greatest of all Mountain Ranges "The Canadian Rockies," are encountered.

The party will stop twelve hours at Banff (The Beautiful), from 6:30 A. M.

to 6:30 P. M., twenty-four hours at Glacier, possibly thirteen hours at Laggan, which points are located in the most interesting mountains of the world. At Banff, is located the Canadian National Park, celebrated Hot Springs, and many other attractions.

At Glacier is located the Great Glacier of the Selkirks, an enormous field of ice, thousands of feet thick, and many miles in length, and only safe for travel when accompanied by Swiss Guides employed constantly for this purpose.

At Laggan will be found Lake Louise, Lake Agnes, and Mirror Lake, also Victoria Glacier, one of the very few advancing ice fields, and all these are above the clouds and of easy access.

At Stephen, situated at the Great Divide, and at which point a sparkling stream separates, one part flowing to the Pacific and one to the Atlantic, is the highest point reached on the railway trip, 5,296 feet above the sea.

Six hundred miles of the most stupendous mountain ranges known to travel are passed and which have been described recently by a well known climber as "Fifty or sixty Switzerlands rolled into one;" cutting through seeming impossible places, the route presents so many surprises to the traveler that it is quite impossible to name them here.

A fitting ending to this magnificent ride will be found in taking the C. P. R. Steamer from Vancouver to Seattle, via Victoria, making possible a visit to these cities by day, in addition to the delightful salt water ride on Puget Sound, all of which is included in the rate of fare, nothing extra.

In the Mountain district, passengers are served meals at fine hotels at regular meal hours and ample time is allowed; rate

75 cents at hotels and 75 cents to \$1.00 in dining cars.

Palace Sleeping car rates Chicago to Vancouver or Seattle \$14.00 for double berth. The party will probably release their special cars at Vancouver, using the Steamer to Portland. In addition to this a reasonable charge will be made for holding the cars at stop-over points.

Schedule is so arranged that the greater part of the scenery is passed by day light, which renders especially entertaining the free use of observation car which will be furnished this party.

About seven days will be required for the going trip which time includes the stop-overs enroute.

On account of the length of the limit of the tickets and the many different plans which different members of the party will have for spending their time in the West it has been decided to be impracticable to arrange for the party to return together.

The following return routes and privileges are available:

O. R. & N. & O. S. L. to Ogden, thence D. & R. G. through the heart of the Colorado Rockies, C. R. I. & P. from Colorado Springs or Denver to Chicago.

Shasta Route to San Francisco, So. Pac. to Ogden (Price of ticket returning via this route \$12.50 higher), thence D. & R. G. to Colorado Springs or Denver and C. R. I. & P. to Chicago.

A side trip may be made from Pocatello or Ogden to Monida including stage ride to and through the Park and hotel expenses for five and one-half days for \$49.50.

All tickets will be good to stop-off within their limit on the return trip at and west of Denver, Colorado Springs and Pueblo.

Tickets may also be had returning to San Francisco, Los Angeles and El Paso to Chicago by paying the \$12.50 extra. There are a number of less important routes available in case members of the party have some special reason for returning another way from those mentioned.

The rate from Chicago will probably be \$56.50 and one fare for the round trip added to this from Michigan points to Chicago. However, a less rate than this may be put into effect by the time of the American Medical Association meeting. Should this be done the fact will be given due publicity.

F. W. ROBBINS.

WOOD ALCOHOL'S RELATION TO BLINDNESS AND DEATH.

The high price of ordinary alcohol has compelled many to resort to the use of wood alcohol to secure the desired inebriate's pleasure. For years this habit has been growing, with the result that it has been found to produce an atrophy of the optic nerve with incurable blindness, and in larger doses, death. This state of things led Dr. Buller, of Montreal, and Dr. Wood, of Chicago, to undertake a study of the entire matter, emphasizing the relation of the poisoning to eyesight. This study was presented to the Section on Ophthalmology A. M. A. last June, and published in the Association Journal. Above all other forms of alcohol, that from wood was found fraught with danger to such as drank it.

Wood alcohol is ill smelling stuff and worse tasting, but because cheaper, it has been adopted by the poor or parsimonious to relieve their cravings for alcoholic

pleasure, and so presents a cause of morbid conditions hitherto unknown. While many cases of poisoning and death have been reported, it is certain that many cases have been unrecognized, to the discredit of the profession and harm to the victims.

Cases are reported of blindness following long confinement in large tanks where the alcohol was used for cleansing or other purposes, and the victim breathed its vapors for a considerable period.

The wide publication of Buller and Wood's studies does not seem to have diminished the number of cases reported in papers, both professional and lay. Thus, on Dec. 17th, the lay papers report six deaths at Ashland, Ky., members of a boat crew. Others of the crew recovered from their drinking bout.

To the profession the matter has a practical interest in offering a possible cause of unusual forms of morbid condition otherwise inexplicable.

To the humanitarian, the question of the checking of this source of inebriation is a puzzling one. It is pretty certain that until perfect nutrition of every person has been attained, the use of alcohol will prevail in spite of either legal restrictions, portrayal of its pernicious effects, or moral precept. Inherited organic ill balance, physical and mental irritation, prepare human beings for the consumption of alcohol as they do of tobacco, morphine, cocaine and other narcotics. The lesson is obvious.

DEATH OF ROBERT JOHNSTON.

Again it becomes necessary for the Oakland County Medical Society to record the loss of one of its most esteemed members.

Dr. Robert Johnston died in Milford, May 14, 1904. He was a member of this society, of the Michigan State Medical Society, and of the American Medical Association. He had practiced his profession in Milford for thirty-eight years, and had made a reputation for professional skill, public-spirited citizenship and uprightness of character which secured the respect and good will of his professional brethren and endeared him to all who were fortunate enough to know him.

Dr. Johnston came from sturdy Scotch ancestry, and was born in Pennsylvania, July 5, 1838. His father, however, moved his family to Missouri when young Robert was four years old. In the latter state Robert Johnston received the necessary education preparatory to the study of medicine. While pursuing his professional studies at the University of Iowa, he was aroused by Lincoln's call for volunteers, and he enlisted in the defense of his country. He served throughout the entire war of the rebellion, with the exception of a brief period necessary for the completion of his medical studies.

He served as assistant surgeon and surgeon of volunteers, and was not mustered out till July 31, 1865. He saw much of active warfare, was present in many of the battles of Kentucky, Tennessee, and Georgia, and at one time was confined in Libby Prison.

Dr. Johnston graduated at the Ohio Medical College, Cincinnati, and at the Bellevue Hospital Medical College, New York City. As a physician we knew him to be efficient and successful, and to possess a generous enthusiasm for the advancement of his profession, and an unflinching care for the welfare of his patients. As a man and as a citizen, his character and worth are sufficiently attested by the

profound grief which possessed his city and vicinity when it was known that he was no more.

MASON W. GRAY.

DEATH OF D. W. C. WADE.

De Witt Clinton Wade was born in Chautauqua County, N. Y., November 3, 1839, and died in the Flint Hospital November 4, 1904. He attended school at Phelps, N. Y., and later at Clinton, Mich., his parents having moved to the latter place. He began the study of medicine at the age of seventeen, and finished the course at the University of Michigan with the class of 1860, but did not then receive his diploma, as he was under twenty-one years of age.

He then went to Albany, N. Y., and attended another course of lectures, receiving the degree of Doctor of Medicine from the Albany Medical College in 1861. Later, in 1903, the University of Michigan conferred on him the degree of Doctor of Medicine.

Dr. Wade began the practice of medicine in Holly, Oakland County, Mich., in February, 1861, and for forty-three years enjoyed the confidence and a large share of the patronage of the community. He was highly esteemed by his fellow practitioners and was frequently called as a consultant and for surgical work.

He was a staunch believer in the benefits of medical societies, and also an active worker in them, being for many years a member of the American Medical Association, of the Michigan State Medical Society since 1875, and of the present Oakland County Society since its organization, at which time he was elected vice-president, and later, at the next annual

meeting, he was elected president. His last active duties were acting as president of this Society at its annual meeting in September, on which day his last illness began.

Dr. Wade was a public-spirited man and his death is a severe loss, not alone to the medical profession, but to the community in general, in whose improvement he was always a leader.

T. E. McDONALD.

County Society News.

BARRY COUNTY.

The Barry County Medical Society held its third annual meeting at Hastings, December 15, 1904. The following officers were elected:

President, Chas. Russell, Hastings.

Vice-President, J. W. Rigterink, Freeport.

Secretary, R. S. Harter, Delton.

Treasurer, J. G. McGuffin, Hastings.

Delegate to State Society, C. S. Carpenter, Woodland.

Alternate Delegate to State Society, J. W. Rigterink, Freeport.

Supervisor for the third year term, J. H. Elliott, Hickory Corners.

There was also a board appointed to confer with the board of supervisors in January in regard to establishing a permanent fixed fee for attending to contagious diseases in the county. This board is composed of the following: Drs. Fuller, Elliott, Rigterink, Shilling and McIntyre.

G. W. Lowry was appointed special delegate to meet with the regents of the University at Ann Arbor to consider the much talked of problem as to whether the faculty shall treat as poor patients all and every one who comes there, free, whether they are paupers or patients of means.

J. G. MCGUFFIN, Treas.

DELTA COUNTY.

At the meeting of the Delta County Medical Society at Escanaba, December 13, 1904, the following resolutions were adopted:

WHEREAS, The attention of the Delta County Medical Society is called to the order of the

Board of Regents of the University of Michigan requiring members of the faculty of the University to give gratuitous medical and surgical aid to all persons applying for same, including those persons able to pay for such services, and

WHEREAS, This order of the Board of Regents has become necessary on account of the want of suitable clinical material, both as to quantity and quality, for the proper teaching of medical students in the University,

Resolved, That in the opinion of this Society the gratuitous treatment by the state of persons whose necessities do not require it is not only wrong in principle and works an injury and injustice to the profession of medicine as a whole in this state, including graduates of the University of Michigan, but also such gratuitous treatment will in no manner improve the situation, either as regards the present needs of the medical department in its lack of suitable clinical material, nor will it meet the necessities of the future. Be it further,

Resolved, That in the opinion of the Society the only practical and effective remedy possible to meet the necessities of the department of medicine of the University of Michigan caused by the lack of proper clinical material at Ann Arbor, is for the Board of Regents to make the necessary provisions for the removal of a portion, at least, of the clinical course to Detroit, where clinical material of sufficient quality and quantity can be readily obtained.

Resolved, Further, That a copy of these resolutions be sent to the Board of Regents.

H. W. LONG, Sec'y.

GRAND TRAVERSE COUNTY.

Grand Traverse County Medical Society held its annual meeting December 7, 1904. The following officers were elected:

President, H. B. Garner, Traverse City.

Vice-President, O. E. Chase, Traverse City.

Secretary, Arthur Holliday, Traverse City.

Treasurer, W. E. Moon, Traverse City.

Board of Directors, J. M. Wilhelm, of Traverse City; F. P. Lawton, of Traverse City; W. F. Strangways, of Traverse City; F. Holdsworth, of Traverse City, and H. B. Anderson, of Traverse City.

ARTHUR HOLLIDAY, Sec'y.

GRATIOT COUNTY.

The Gratiot County Medical Society held its annual meeting November 3, 1904. The following officers were elected:

President—I. N. Brainerd, Alma.

Vice-President—W. M. Weller, Ithaca.

Secy-Treas—E. A. Bagley, Alma.

E. A. BAGLEY, Secy.

IONIA COUNTY.

Ionian County Medical Society held its annual meeting at Ionia, Oct. 5, 1904. The following officers were elected:

President—W. L. Barnes, Ionia.

Secy-Treas.—Jas. E. Ferguson, Belding.

JAS. E. FERGUSON, Secy.

ISABELLA COUNTY.

The annual meeting of the Isabella County Medical Society was held in Mt. Pleasant, December 1, 1904. The following officers were elected:

President—D. M. King, Shepherd.

Vice-President—C. D. Pullen, Mt. Pleasant.

Secy-Treas.—C. M. Baskerville, Mt. Pleasant.

Board of Directors—James McEntee, P. E. Richmond and H. V. Abbott.

Delegate—C. D. Pullen.

Alternate—A. T. Getchell.

A resolution was adopted, protesting against gratuitous treatment of everyone, regardless of their ability to pay or place of residence by the faculty of the University of Michigan.

C. M. BASKERVILLE, Secy.

KALAMAZOO COUNTY.

The annual meeting of the Kalamazoo County Medical Society was held December 13, 1904, in the public library building. The first order was the business meeting, and was called to order at 1:30 p. m. by A. H. Rockwell, president. The annual report was read, and showed the organization to be in a prosperous condition. The election of officers for the ensuing year resulted in the following selection:

President—Paul T. Butler, Kalamazoo.

First Vice-President—R. E. Balch, Kalamazoo.

Second Vice-President—S. B. Snyder, Kalamazoo.

Secretary-Treasurer—O. H. Clark, Kalamazoo.

Censors for three years—H. Ostrander, A. H. Rockwell.

C. E. Bays, F. H. Ilgrenfritz, and E. D. Sage were admitted to membership.

O. A. LaCrone was appointed by the society to represent it before the State Board of Regents of the University on December 27, 1904, when the question of regulating the admittance of patients to the state hospital will be discussed.

The society stands opposed to free treatment at the University hospitals of any patients able to pay for medical treatment, and contend that the indiscriminate free treatment has a disastrous effect upon their practice, and ask that some measure of regulation be adopted.

O. H. CLARK, Secy.

LENAWEE COUNTY.

The Lenawee County Medical Society held its annual meeting December 13, 1904. The following officers were elected:

President—R. M. Eccles, Blissfield.

Vice-President—L. S. Town, Geneva.

Secretary—D. L. Treat, Adrian.

Treasurer—E. T. Morden, Adrian.

Board of Directors—C. Kirkpatrick, of Adrian; L. S. Town, of Geneva, and F. E. Adreus, of Adrian.

E. T. MORDEN, Treas.

MARQUETTE COUNTY.

Marquette County Medical Society held its third annual meeting at Negaunee, December 20, 1904. The following officers were elected:

President—F. McD. Harkin, Marquette.

Vice-President—W. S. Picotte, Ishpeming.

Secy-Treas.—H. S. Hornbogen, Marquette.

Delegate—C. F. Moll, Kenton.

Alternate—H. S. Smith, Negaunee.

H. S. HORNBOGEN, Secy.

OAKLAND COUNTY.

The regular meeting of the Oakland County Medical Society was held in Pontiac, December 13, 1904.

On recommendation of the Board of Directors the following physicians were elected to membership: Jesse Gillett, Amy; Samuel L. Weisbrod, Highland; Rob't. W. Cooper, Highland; Ellsworth P. Mills, Holly; Charles W. Snyder, Clyde.

Memorials of Dr. Robert Johnston and Dr. D. W. C. Wade (pp. 84, 85) were presented, and by vote of the society were made a part of the records.

PROSTATIC HYPERTROPHY—VARIOUS METHODS OF
SURGICAL TREATMENT.

BY R. O. LE BARON, PONTIAC.

Abstract—

At the present time the operation advocated by most surgeons is prostatectomy, partial or complete. The perineal operation gives a somewhat lower mortality than the suprapubic. Patients who are operated early, before serious complications have made their appearance, have a much better chance of surviving and of being permanently benefited than those who are operated later.

HYPERTROPHY OF THE PROSTATE; CAUSATION AND
GENERAL MANAGEMENT.

BY J. J. MURPHY, PONTIAC.

Abstract—

"In about one-third of all males who have passed middle life some enlargement of the prostate has taken place. In about one-tenth of all males over fifty-five this enlargement becomes of pathological importance." (The American Text Book of Surgery.) We are led to believe by a statement such as this that in the causation of prostatic hypertrophy the age of the individual is the first and most prominent factor.

Race has something to do with its frequency, as it is rare in Japan, China and India. It is also rare among the Negroes of Africa and this country. It is also rare among the Indians. It is common in Turkey and common with the white man. Sexual indulgence carried to excess is a cause given by White and Martin, while Murphy says "it has nothing to do with it."

Keys says "that no satisfactory theory has yet been advanced as to the etiology of prostatic hypertrophy, that many ingenious suppositions have had ardent defenders and so require at least brief notice."

In artero-sclerosis the enlarged prostate is supposed to be only a part of a series of senile changes affecting the whole urinary tract as well as other parts of the body, and still in how many old men do we find a marked artero-sclerosis with a slight hypertrophied prostate or one unaffected and apparently normal.

Valpean suggests that there is a biological analogy between the fibromyomata of the uterus and hypertrophy of the prostate. This theory has been confirmed clinically by castration in the male and by ovariectomy in the female, the results being a marked cessation of symptoms with some atrophic changes. Pathologically when

we get these results the uteri are fibro-myomatous, while the prostates are adeno-fibrimatous which to a great extent dims the clever theory of analogy of the predisposing causes. We have, according to Keys, a tendency for this condition to run in families.

Chronic congestion of the gland is another rational theory, the congestion being brought about by our sexual indulgence, sedentary habits, over-eating, thereby causing an unbalanced metabolism, developing into the gouty diathesis, uricacidemia and auto-infection.

Injuries and stone are sometimes direct causes. So in summing up the etiological factors of hypertrophy of the prostate gland, we can say we know nothing definite about it.

In the general management of this disease, we are guided entirely upon the conditions of the individual afflicted. These conditions are divided for convenience into three classes. First, the period of congestion; second, the period of partial retention; and, third, the period of complete retention.

In the period of congestion we may find a history like the following: Patient gets up a little earlier in the morning to empty his bladder. Soon he finds he must wake up at night to urinate. He is troubled a little more in the daytime. Soon he finds at night that he must wake up several times to empty his bladder, is bothered with frequent and severe erections. He experiences a dull weight or perhaps pain in the region of the rectum or neck of the bladder. For the above described symptoms he may not seek medical aid but if he does, on examination per rectum, we find a slightly enlarged prostate, not very sensitive to the touch and perhaps soft. After urination, if immediately catheterized, we do not find much if any residual urine.

The management of this case is advisory more than medical, avoidance of exposure to cold, regulation of habits, regulation of diet, hot rectal saline irrigations, avoidance of constipation, avoid holding the urine too long. The use of the catheter is not necessary. Benefit is often derived from passing full-sized steel sounds. They should be passed about every fifth day and allowed to remain in place about ten or fifteen minutes.

The second stage (partial retention) comes on gradually but surely. At last the time arrives when the bladder is not able to empty itself completely. Thus we get a residual urine which is constantly present, causing irritation with an increasing desire to urinate. There is a sense of pain and weight in the neck of the bladder and in the rectum. On urinating the

stream is small with very little force behind it. The last portion drizzles or drops away from the meatus. Let a man in this stage drink some alcohol or get his feet wet, or let him be exposed to the cold and we will find sometimes a picture like this. He is in great pain and distress, trying to urinate, constantly straining. After a time if not successful in emptying it unassisted, his bladder becomes distended to its utmost and then he notices a few drops of urine passing away from him which he hails with delight. This is the overflow and is apt to deceive the physician who may be called to attend him. The prostate has become swollen and congested to the extent that the prostatic urethra is closed. In such a case, as already described, the first step in its management would be a well-balanced hypodermic of morphia to allay spasm and alleviate pain. Then we should proceed to catheterize him. Before attempting this, however, we should by all means render the parts aseptic. First an antiseptic soap and hot water should be used. Then a 1-to-1000 solution of bichloride. Then disinfect our hands and instruments. Instruments should be boiled in a soda solution, wiped dry with aseptic gauze and rolled up in a sterilized towel ready for use. We should have as a lubricant sterilized vaseline in collapsible tubes. The instruments necessary should be about as follows: An olive-tipped elastic catheter, a cylandric elastic catheter, a conic elastic catheter, a Mercier single elbow prostatic elastic catheter, a Mercier double elbow prostatic elastic catheter, a large curved prostatic web catheter, a metal male catheter, a metal prostatic catheter.

With hands aseptic we wrap the penis with aseptic gauze, lubricate our sounds and proceed. Force should not be used, for if we use other than gentle pressure we will do damage. With pathogenic germs normally found in the urethra a wound opens up an avenue of infection in a most favorable soil. We should first try one catheter and then the other until we find one that will pass. We may facilitate matters some by inserting the index finger into the rectum with a rubber glove on the hand. It gives us first an idea of the size of the gland and its general contour. Secondly, if we gently elevate the prostate, at the same time using gentle pressure on our catheter, we may succeed in passing the instrument. If we fail with the soft elastic catheters then we may try a large metal prostatic catheter. In passing a metal instrument we should remember to follow the roof of the urethra, as it were, instead of the floor. A metal

catheter should have the proper curve, and "in passing the catheter as far as the pubic arch we should see that the distal end of the instrument should not be raised more than 45 degrees from the surface of the abdomen. The half circle which it must make before the bladder is reached is then rapidly completed, a maneuver that keeps the point of the instrument in contact with the urethral roof, avoiding in this manner the prostate. If we fail perhaps partial or complete anesthesia will allow us to accomplish the emptying of the bladder. Sometimes when we fail in getting the urine we may use hot applications, put our patient to bed, get him warm, give him a hot rectal irrigation. If we fail then we may aspirate. This procedure is simple and effectual and if done carefully will do no damage, shave the pubic hair, disinfect skin, with trochar aseptic puncture the abdominal wall about two inches above the pubes. Here you enter the bladder.

If it be possible to catheterize our patient wash out the bladder with hot boric acid solution, allowing a small amount of the fluid to remain. Irrigate the urethra with this fluid. This procedure will not only avoid collapse but will give some degree of safety against infection. Catheterization or catheter life should begin much earlier than it commonly does, for often a decided cystitis is set up by residual urine and more congestion by straining than damage is done.

Catheter life should begin in all cases in which three or four ounces of residual urine is present. White and Martin give the following rule:

The frequency should be in proportion to the amount and character of residual urine. If the urine be sterile use the catheter once daily, for three ounces preferably at bedtime, for six ounces twice daily, and once more for each additional two ounces.

In the third stage or stage of complete retention the bladder is literally full all the time. Occasionally the patient may prevent a continuous overflow by voiding a few drops. The bladder is small and contracted. At night it is not large enough to accommodate the urine as it comes from the ureters. The urine dribbles away while he sleeps. The bladder becomes distended, back pressure causes dilatation of the pelvis of the kidneys. Polyuria begins; specific gravity 1005 or 1010 with albumen and casts; the bladder is infected. A marked cystitis occurs. Constant catheter use keeps up a continual irritation until our debilitated old man develops a

pyelonephrosis. A general urinary toxæmia sets in, fever, dry tongue, glazed and red at edges, brown in center, constipated, loss of appetite. At last he dies from sepsis.

The case above described is a hopeless case, and should have been a surgical case long before the third stage of the disease is reached. The management, if he is not too debilitated or too septic, is surgical. If not operable, then treat symptoms, and await the final and positive death, which surely will come. There is nothing special in the way of management of the third stage other than stated in the second stage. In handling our prostatitis in a general way we should go into every detail—their occupation, habits, dress, diet. They should take exercise not violent, should not be exposed to extreme cold or cold rains, should get up often at night to empty their bladders. Highly seasoned food and alcohol should be prohibited. Milk is the best and should be almost the sole food at times. They should wear woolen underwear the year around and should by all means keep their feet warm and dry. If in the first stage the management as already stated should be instituted. If in the second, the patient should be given about four soft malton catheters of various sizes, those of large calibre usually passing the easiest. He should be shown how to disinfect them and how to pass them.

He can boil them in soda sol. and then put them in an open mouth glass jar in which we have a 5 per cent. sol. of carbolic acid. He can be instructed along the line of the dangers of a careless catheter life. He can be shown how to sterilize his hands and his penis. But will he carry out your advice? Few men will for a time perhaps. Ere long he will become careless and dirty about this particular and important duty. This recklessness brings on many complications which have to be cared for as they arise. Most common of all is cystitis.

In closing I believe that the hypertrophied prostatic belongs to the surgeon, that he should care for him and manage him. That medicine in this disease is of little if any importance. The day is fast approaching when medical men will recognize the importance of earlier surgical interference in hypertrophy of the prostate.

M. W. GRAY, Sec'y.

OTTAWA COUNTY.

The annual meeting of the Ottawa County Medical Society was held in Holland, October 11, 1904. The following officers were elected:

President—C. P. Brown, Spring Lake.

Secretary—D. G. Cook, Holland.

Treasurer—A. Leenhouts, Holland.

At the meeting the following were elected to membership: A. T. Godfrey, Holland; E. D. Kremer, Holland; C. P. Strive, Hudsonville; John Masselink, Zeeland.

D. G. Cook, Sec'y.

TRI-COUNTY.

The Tri-County Medical Society held its regular meeting at Cadillac, January 4, 1905. The following resolution in regard to delinquent debtors and medical treatment for fraternal and kindred organizations, was adopted:

Resolved, That it is necessary for the protection of the members of this society that a delinquent list be made. Furthermore, that each member of this society send a list of such debtors to the secretary of the society before February 1, 1905, and that the secretary be empowered to have printed pamphlets sufficient for each member and no professional services shall be rendered to any patient unless he makes satisfactory settlement with the physician or physicians to whom he is indebted. This shall in no way apply to the unfortunate or worthy poor. These resolutions are to take immediate effect.

Section 2. No member of this Society shall, after the adoption of these by-laws, enter into any time contract or obligations to attend, consult with, prescribe for or examine, professionally, any member or members of any sick benefit, accident or other casualty or indemnity insurance or protective society or the charge or dependents of any private, public or municipal organization or corporation, for a stated, agreed or understood amount of compensation for a given period of time nor any basis of compensation other than that obtained in relation to ordinary patients and practice. Any violation of the provisions of this section will subject the offender to exclusion from this society for unprofessional conduct and public notice of this action will be given. This shall not apply to county work in Wexford County until after January 1, 1906.

Section 3. That the secretary send to all county newspapers published in the jurisdiction of the Tri-County Medical Society marked copies of the Cadillac newspapers containing the resolution regarding delinquent debtors, with the request that same be published.

J. T. Doudna, of Lake City, and O. L. Ricker, of this city, were the members of the committee in charge of the resolution relative to fraternal

society medical treatment and B. H. McMullen, S. C. Moore and G. DeVere Miller were selected as a committee for the conference with the organizations involved. E. B. Babcock, of Kalkaska, was selected to represent the Tri-County Society at the coming annual meeting of the State Society at Petoskey. W. B. Wallace, of Manton, is the alternate delegate.

O. L. RICKER, Sec'y.

WAYNE COUNTY.

The Wayne County Medical Society held its regular general meeting December 5, 1904. Charles Douglas read a paper entitled "When and How to Wean the Baby."

Abstract—

This paper showed by statistics from the State of Michigan and the city of Detroit the high mortality rate among infants during the first year. In 1890 there were in Michigan 6,542 deaths of infants under one year old. Of these 4,361 could have been saved by correct feeding.

In Detroit there are more infants dying under one year old than die of all ages between one and thirty. The greater number of these infants die from diseases traceable to improper feeding.

Applying these figures in Michigan to the whole of the population of the United States they would show a mortality of nearly 140,000 infants whose deaths are traceable to improper feeding.

The proper time to wean is while the infant's digestive glands are healthy: As soon as the stools show improper digestion and the infant fails to gain in weight, if changes in the mother's diet, with mental and physical rest, do not give happiness and increased weight to the infant, it should be weaned. This rule applies to infants of all ages.

Where this rule is not followed and the mother persists in nursing, the digestive glands of the infant are seriously damaged and subsequent feeding gradually becomes difficult proportionately with the damage thus caused. In this way great numbers of infants are lost each year. I strongly insist on the necessity of weaning when the stools are persistently green and the infant is steadily losing weight. I also impress on physicians the necessity of personally and regularly examining the stools of all infants who are colicky and not thriving satisfactorily, as only by doing so can they know when to wean and

teach the mothers correct principles on this important subject.

Weaning should be done gradually, and at least two weeks should be consumed in making the change. Only one meal should be changed every one or two days. In this way little damage can be done by any unsuitable food or amount given at any time.

Correct nursing is a physiological process and leads to success, while improper feeding is always pathological and leads to failure, whether it is maternal nursing or substitute feeding.

W. J. STAPLETON, JR., Sec'y.

Miscellaneous.

NEWS ITEMS.

A CONFERENCE ON THE ABOLITION OF FEES FOR MEDICAL SERVICE TO THE WELL-TO-DO AT MICHIGAN UNIVERSITY HOSPITALS.

In a recent issue of the Michigan Alumnus, the Regents published some rules for the guidance of the Medical Faculty in their relation to hospital patients. One of these created a wide spread interest in the branches of the Michigan State Medical Societies, viz—the one directing that all professional services be free to any hospital patient irrespective of his financial ability.

These branch societies agreed that such a rule was hostile to the best interests of both profession and people. They sought a conference with the Regents which was held December 7th, at Ann Arbor.

All the Regents but Mr. Butterfield were present and the following physicians: George W. Lowry, of Hastings; A. M. Hume, of Owosso; A. P. Biddle, of Detroit; E. L. Shurly, of Detroit; C. G. Jennings, of Detroit; George C. Haford, of Albion; B. D'Arcy, of Caro; John Wessinger and George Dock, of Ann Arbor; H. B. Landon, of Bay City; W. L. Wilson, of St. Joseph; Mary E. Green, of Charlotte; H. E. Randall, of Lapeer; Emil Amberg, of Detroit; H. G. Berry, of Mt. Clemens, L. E. Maire, of Detroit; A. N. Collins, of Detroit; Leartus Connor, and J. H. Carstens, of Detroit.

President Angell presided. Dr. Carstens in behalf of the county societies represented asked

Dr. Hafford to read the following paper; as representing views of the physicians present:

To the Board of Regents,
University of Michigan.

'Gentlemen: The Medical profession respectfully protests against the free treatment of ALL patients who apply to the University Hospital, and asks that discrimination should be shown so that only those be treated who are poor, and unable to pay for medical services.

The reason is simply this: By thus treating people who are able to pay, the members of the Medical profession are injured, and their incomes lessened. The average income of the physician is already too low. By the free treatment of both medical and surgical cases at the University hospital, not only do physicians have their remuneration for services lessened, but the fee for professional services is affected by the almost free treatment of the University hospital. Patients simply put it this way. For three or four weeks board I pay so much; and for railroad fare so much; hence my total expense for treatment or for operation is so much. They say to their doctor: "Now, if you would be willing to do that professional service for the same price, I will stay at home and you may treat or operate on me." This sort of competition is unfair, and we are sure the Board of Regents will not sanction it, if the situation is explained to them.

The practice has a bad effect on the people also; it pauperizes individuals, because every individual who goes to the University hospital and receives something for nothing becomes virtually a pauper. If a person is poor and says he is willing to go before the class and render compensation for the services received by him, by being exposed to the class, and examined by the students, he does something towards paying for his treatment. But the patient who is rich and perfectly able to pay, certainly has no such excuse. He simply does it to save money and is sponging on the medical profession at large. We think that it is unfair not only to the profession who practice in the State and adjoining States, but it is also unfair to the students who come to Ann Arbor in good faith expecting to be members of an honorable profession and to be able to make an honest living. When they graduate they find that their Alma Mater takes many of their patients, to which they should be ordinarily entitled, and treats them at the University hospital free of charge. They may thus often be forced into disreputable practices. No other

profession or calling is treated like this by the Michigan University.

We are all proud of our University. Many of us are graduates of the institution and we want it to prosper. We do not want and do not like to see a large portion of the leading citizens antagonistic to it. The members of the medical profession have always been in the front rank in support of the University, morally and substantially. It has always defended the University against its enemies and urged its officers and corps of teachers to keep it up to the highest standard.

Now, we are well aware of the difficult position of the Regents in this matter. We know of the difficulty of getting all kinds of clinical material in a small city like Ann Arbor and we know that the one object of the Regents is to get clinical material for the medical department, for the purpose of first-class and up-to-date teaching. We are willing to help them in this noble work and think it can be done without injury to the profession and without pauperizing the community.

Under the present system, the poor are not treated at all, because patients pay for their board at the hospital, and the really poor cannot even pay that much. The worthy poor of the state are thus deprived of treatment, and those only who are able to pay, admitted to the University hospital.

It seems to us that the poor and needy could be selected for treatment in preference to the well-to-do. We understand that sometimes people have to wait for weeks before they can be admitted, and if that is the case, the poor people could be selected and the well-to-do could be turned over to the different members of the Faculty to be treated privately for which they should pay. We certainly do not object to the Professors of the University having private patients and being paid for their private work. This is being done in every medical school in the country, but also in every such school and hospital in the country a thorough investigation is made of the person's ability to pay, and none are treated free who are able to do so.

In cases of emergency, such as obstruction of the bowels, hemorrhage, etc., of course prompt relief must be given to the patient without question. That is done by every reputable physician the world over and finances can be settled afterwards. To such we do not refer; it is only to those where deliberate arrangements are made to treat the patient.

Of 100 ovariectomies, 10 is all that is actually necessary for the instruction of the students. Ten of these, perhaps, are poor, while the other ninety are amply able to pay for professional service which through free treatment the profession has been deprived of. We could keep on enumerating similar instances, but this is sufficient to show the point we wish to make.

The clinical material of the University is of a chronic kind, principally, and too numerous in certain lines. Take, for instance, the 114 operations for cataract. Fourteen would be enough and that number of cases would be more than any one general practitioner would see in the practice of a life time. The 14 cases are probably poor, while the 100 cases who are absolutely not needed for clinical work ought to have been sent home or ought to have paid a fee for the services rendered.

Now these 100 cases of cataract could pay to the surgeon from \$50.00 to \$200.00, say an average of \$75.00 each, or \$7,500.00 altogether in fees; the 100 ovarian operations will average at least \$100.00 each, or a total of \$10,000.00 in fees, of which the profession of Michigan has been deprived. By adding all other cases, it becomes an immense sum annually.

You probably will ask, what can we do to supply clinical material? We will say that Dr. A. M. Hume, of Owosso, has suggested a way which will furnish you far more clinical material and a greater variety than you can now get. The plan is about as follows:

Let the poor from the State be handled about as the insane are. Wherever there is a poor person in a township, let such a person be sent to the University hospital at the expense of the township, or if it is a county case at the expense of the county.

Many of these cases are on the town or county for a greater or shorter length of time every year, a constant drain to the community. If they could be sent to the University hospital and be subjected to thorough investigation and scientific treatment many of them could be cured and restored to usefulness, and the township or county saved future expense in the care of them.

These poor and sick people first come under the observation of the local physician, and the physicians all over the State would only be too happy to have them sent to and treated at the University hospital. Thus you would get all the clinical material of a diverse character needed without much trouble, and the community from which they came would have their taxes lessened,

while the medical profession would not suffer as it does now under the present arrangement.

In behalf of the Committee,

J. H. CARSTENS, Chairman.

Dr. Hume advocated measures that would make the counties and townships care for the indigent sick, as they now do the indigent insane. In answer to questions from the Regents many of the physicians gave their views, based on individual experience and observations. The Regents especially desired a practical plan, by which they could obviate the physicians' objections. Aside from Dr. Hume's plan, none was presented. The Regents wanted the hospital fees for its support, and to get these the poor must be passed by, as they did not believe that the county and town officials would pay the board for their sick poor in the University hospitals. Practically, the physicians rested their case on the fact that the remission of fees for professional service to the well-to-do at the University hospitals, was harmful to profession and people alike. How to conduct the hospitals, and collect fees for professional services rendered therein, was postponed for future consideration.

In general, Dr. Dock, the Regents and the Hospital Superintendent, regarded the present situation all right. The other physicians thought otherwise.

That the Regents should grant such a conference, and so many busy physicians drop their work and spend the day in an effort to better the present situation, indicated its seriousness.

The Faculties and students of the Michigan Medical College desire that the State Examination for License to Practice be divided into Primary and Final; the first at the end of the second year and the second at the end of the fourth.

In accord therewith a bill will probably be presented to the Legislature for its consideration.

The Eleventh Councilor District Medical Society held a meeting at Muskegon, December 8, 1904. About 50 members and visiting physicians were present. In the evening a banquet was served.

With its fifty second volume the "Sanitarium" was consolidated with the Popular Science Monthly.

The Bulletin of the Kentucky State Medical Journal changed its title to the Kentucky Medical Journal.

The Boston Medical Library plans to become an Academy of Medicine with meetings designed to unite the efforts of the best members of the profession in and tributary to Boston.

Prof. Puschmann has given 500,000 marks to the University of Leipzig to further the study of the history of medicine.

Dr. Wm. Osler has contributed \$1,000 towards the purchase of a building for the Ontario Medical Library Association, at Toronto. The Association's library numbers 8,000 volumes. Local medical societies will hold their meetings in the building.

The late Mrs. Sarah Potter left one hundred and fifty thousand dollars to the Boston Medical Library. We have not heard of a similar gift to the Detroit Medical Library. Yet the development of Detroit as a medical center is greatly retarded because there is practically no large medical library. The several efforts towards this object gradually died out with little to show.

It is hoped that all members of branches of the State Medical Society will remember that all dues for current year should be paid by or before Jan. 1st, 1905. Certainly thirty days of grace, for writing and mailing checks to the local secretaries, ought to satisfy even the most sluggish.

Last year the Council yielded to the spirit of sluggishness, and for this were called down, good and hard by the members who paid promptly. Hence they instructed the Secretary Editor, to cease sending the Journal promptly when prepayment ceased—in short they will hereafter treat all alike—so that those who pay will not aid in carrying the journal for such as do not pay. Moral—Pay now if you have not and so secure numbers as issued.

The library of the Paris Academy of Medicine contained 202,376 volumes at the close of 1903-4—511 volumes being added during that year.

During the past seventeen years the deaths from consumption in Boston, Mass., have been reduced fifty per cent.

William Wood & Co. have issued a little book celebrating the firm's one hundredth anniversary, by giving a history of the several steps of evolution.

Dr. Frank Foster of the New York Medical Journal has completed his twenty-fifts year service as a medical editor.

Dr. N. N. Wood, of Christian Hospital fame in Chicago, has been sentenced for contempt of court in violation of an injunction from using Dr. J. B. Murphy's name in connection with his hospital. Ten days in jail, one hundred dollars fine for himself and two hundred and fifty for the hospital will do as a starter for his impudence in disobeying the court.

The thirteenth ward of Manhattan Borough, N. Y., has a population of 12,008, and 874 tenement houses. Last year 84,938 violations of the law were filed against the landlords. In forty-one of the forty-eight blocks there were deaths from consumption—in some twelve, others eight—altogether 187.

Osler Memorial Library is the name of an institution proposed for Baltimore, in honor of a physician whom not only Baltimore but America and Great Britain delight to honor. Money to amount of one or more hundreds of thousands of dollars is to be raised by friends of the project. It is proposed to make it one of the best medical libraries in the world.

CHANGE IN MEMBERSHIP.

(Dec. 15th to Jan. 15th.)

NEW MEMBERS.

James W. Barnabee, Mendon, Mich.
J. B. Baruch, Detroit, Mich.
G. L. Bennett, Gobblesville, Mich.
C. E. Boys, Kalamazoo, Mich.
O. F. Broman, Hart, Mich.
J. D. Buskirk, Shelby, Mich.
E. A. Campbell, Detroit, Mich.
R. G. Cavanagh, Muskegon, Mich.
V. A. Chapman, Muskegon, Mich.

A. W. Chase, Adrian, Mich.
 R. W. Cooper, Highland, Mich.
 Wm. Dunlap, Detroit, Mich.
 Alice B. Ellsworth, Kalamazoo, Mich.
 C. B. Erwin, Hartland, Mich.
 T. A. Ewart, Morenci, Mich.
 C. J. Fisher, Holland, Mich.
 R. V. Gallagher, Dowling, Mich.
 Jesse Gillett, Amy, Mich.
 A. T. Godfrey, Holland, Mich.
 G. F. Hamlen, Farmington, Mich.
 R. S. Harter, Delton, Mich.
 W. F. Hoyt, Paw Paw, Mich.
 F. M. Ilgenfritz, Kalamazoo, Mich.
 G. F. Inch, Kalamazoo, Mich.
 H. W. Knapp, Johannesburg, Mich.
 E. D. Kremers, Holland, Mich.
 E. G. Low, Bangor, Mich.
 J. Masselink, Zeeland, Mich.
 John G. Maurer, Reese, Mich.
 H. L. Older, Morenci, Mich.
 O. B. Ranney, Kalamazoo, Mich.
 E. D. Sage, Kalamazoo, Mich.
 F. G. Sheffield, Nashville, Mich.
 S. A. Snow, North Branch, Mich.
 S. B. Snyder, Kalamazoo, Mich.
 C. P. Struve, Hudsonville, Mich.
 M. R. Sutton, Canandaigua, Mich.
 L. W. Trask, Mio, Mich.
 F. L. Truitt, Detroit, Mich.
 E. H. Van Deusen, Kalamazoo, Mich.
 S. L. Weisbrod, Highland, Mich.
 P. White, Detroit, Mich.
 D. E. Winer, Vanderbilt, Mich.
 A. S. Youngs, Kalamazoo, Mich.

CHANGE OF ADDRESS.

S. S. Lee, Calumet, Mich.
 H. S. McGee, Ann Arbor, Mich.
 P. E. Marsh, Otter Lake, Mich.
 J. C. Peppler, Holland, Mich.
 C. M. Thompson, Elk Rapids, Mich.
 W. J. Wall, Davison, Mich.

DIED.

J. H. Hudson, Negaunee, Mich.
 J. H. Reynolds, Adrian, Mich.

BOOKS RECEIVED.

A COMPEND OF THE PRACTICE OF MEDICINE. By D. E. Hughes. P. Blakiston's Son & Co., Philadelphia, 1904.
 A TEXT BOOK OF ALKALOIDAL THERAPEUTICS. By W. F. Waugh and W. C. Abbott. The Clinic Publishing Co., Chicago, 1904.

A THERAPEUTIC GUIDE TO ALKALOIDAL DOSIMETRIC MEDICATION. By John M. Shaller. The Clinic Publishing Co., Chicago, 1904.

ABBOTT'S ALKALOIDAL DIGEST. W. C. Abbott. The Clinic Publishing Co., 1904.

ANNUAL REPORT OF SURGEON-GENERAL OF THE PUBLIC HEALTH and Marine Hospital Service of the United States. 1904.

TRANS. OF INDIANA STATE MEDICAL ASSOC. 1904.

Subcutaneous Injections of Boiling Water in Naevi.—In a communication to this journal of recent date Dr. Reycraft advocates the injection of boiling water into the vascular and thickened substance of naevi, especially as found in children, and as advocated by John A. Wyeth of New York. He cites 3 cases as examples: First case. Child with varicosity of nose enlarged to size of English walnut. Patient chloroformed. Antitoxin syringe used. Point of needle injected well into nose and injection of boiling water kept up until whole structure turns white. Some experience in the use of the method seems necessary, but mode of operation easily learned. Injections were made at three different periods, but now after a lapse of two years no trace of the trouble remains. Second case: Child with naevi over left eye. But one operation secured as the parents were timid. Resulted in great improvement. Third case: Child with large blood tumor on back of head. Only one injection necessary to its removal.

Port wine marks may be improved but not to the same extent. Methods of treatment useful also in sarcoma, hydrocele, varicose veins of lower extremities.

There is no danger in this method of destroying the vitality of the skin, no matter to what heat it may be subjected. (JOHN J. REYCRRAFT, M. D., Petoskey, Mich.)

Penetrating Wounds of the Abdomen—(Conclusions): 1. Recognizing that visceral injury follows in 97 per cent. (Douglas) of penetrating gunshot wounds of the abdomen, immediate laparotomy, with a liberal incision, should be practised in every such case.

2. The symptoms exhibited by the patient, the location of the wound, and the course of the bullet should rather be used for determining the presence or absence of penetration, as the use of the probe is not only harmful, but may lead to false conclusions.

3. Well-directed drainage in all cases in which there has been visceral perforation is of the greatest importance. (F. L. HUPP, *Annals of Surgery*, January, 1905).

Book Notices.

Under the Charge of

RAY CONNOR.

A COMPEND OF THE PRACTICE OF MEDICINE. By Daniel E. Hughes, M. D. Seventh edition. Edited, revised and in part rewritten by Samuel Horton Brown, M. D. With 27 illustrations, 12 mo.; 780 pages, full morocco, gilt edges and round corners. Net, \$2.50. P. Blakiston's Son & Co., Philadelphia, 1904.

Much of this well known hand book has been rewritten and the book has been greatly enlarged, one hundred and thirty-seven pages having been added to the old edition. The volume has about reached the limit of size compatible with usefulness in its present sphere and any further increase will but serve to make it bulky and inconvenient. It occupies a niche of its own midway between the quiz compend and a text book of medicine.

Some illustrations have been added to the text in the present edition but they are not sufficient either in number or quality to add greatly to the value of the whole. The question of classification has been dealt with as simply as possible and while one may quarrel with certain details something must be conceded to gain the simplicity so much needed in a work of this kind. Fevers are first considered and then diseases of the digestion tract under which are included kidney lesions. Addison's disease is grouped with the diseases of the blood while acute articular rheumatism is classified under general disease rather than fevers. Septicæmia is evidently not considered a medical disease as no mention is made of it. Diseases of the respiratory, circulatory and nervous systems are each given sections to themselves. The latter is not made to include moreover either the spinal cord or nerves as they each have chapters of their own. General nervous diseases, mental and skin diseases complete the classification.

A very complete table of contents begins the volume and a full index closes it so that the material is made as easy of access as possible. The book is concise and definite and gives the hard pressed medical student a skeleton to hang his facts on as he may pick them up in clinic or lecture room without being full enough to encourage him to depend on it alone for his medical knowledge.

A TEXT-BOOK OF ALKALOIDAL THERAPEUTICS. By W. F. Waugh, M. D., and W. C. Abbott, M. D., with the morocco, gilt edges and round corners. Net, \$2.50. cloth, \$2.50. The Clinic Publishing Co., Chicago, 1904.

The mission of this book is to get together from all sources the facts concerning the alkaloids and active principles and to present them in a ready-to-use form.

The drugs treated are taken up alphabetically and discussed more or less fully. General information is first given such as the source of the drug, its history in some cases, solubility, etc. Then the physiologic action synergists, antagonists, therapeutics and administration. In certain cases the toxicology is also taken up. Amongst the alkaloids are to be found also such chemicals as barium chloride, cerium oxalate, iron and the like.

The book is interleaved with blank pages for convenience of the owner in adding his own experience to the mass of evidence already obtained.

A THERAPEUTIC GUIDE TO ALKALOIDAL DOSIMETRIC MEDICATION. By John M. Shaller, M. D. Second Edition, 424 pages. Cloth, \$1.00. The Clinic Publishing Co., Chicago, 1904.

The substance of this book is compiled from notes of clinical and physiological lectures delivered to the students of the Cincinnati College of Medicine and Surgery. The various remedies presented are those considered by the author the most important for general use.

This book is intended for the beginner in the use of dosimetric granules. The more important drugs only are taken up and the list is not nearly so complete as in the larger work already noticed. The book concludes with an index to remedies and a clinical index giving briefly the treatment of a large number of common complaints with the references to the portion of the text when they are considered.

ALKALOIDAL DIGEST. By W. C. Abbott, M. D. 240 pages, 50c. The Clinic Publishing Co., Chicago, 1904.

This little vest pocket book contains much on Alkalimetry. It contains not only the list of preparations but their uses in disease and lastly their prices.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Passage of Different Foodstuffs from the Stomach.—Some interesting experimental work has been done by W. B. Cannon along this line. In the transfer of food through the stomach two factors are concerned, the gastric waves of peristalsis and the pyloric sphincter. The peristaltic waves are from the middle of the stomach to the pylorus during the whole of the digestive period. The way the waves act on the food depends on the pylorus. If it is closed the food is churned with the gastric secretions. When open, the waves force the food through into the intestine. The action of the pylorus seems to be a matter of chemical stimulation. The appearance of free acid in the stomach seems to be the signal for the opening of the pylorus and some of the acid chyme is poured into the duodenum. Strangely enough acid in the duodenum is an irritant and keeps the pylorus closed. Acid in the duodenum causes the flow of alkaline secretions of the pancreas. No inorganic acid is known to be present more than a few inches into the intestine. Hence the acid is neutralized and so the process is repeated. The carbohydrates pass rapidly into the intestine while the proteids are delayed for the gastric secretions to act upon them and to prevent too much material harmful to intestinal digestion going at once in the duodenum. (*Journal of the American Medical Association*, January 7, 1905).

Intravenous Injection of Antitoxin in Diphtheria.—Out of a series of 246 cases of diphtheria, thirty-eight were selected for this method of treatment. These were grouped as nasopharyngeal, pharyngeal and laryngeal. In the first group 14 were so treated without a death. Five of these had intravenous injection only—the others had supplementary subcutaneous injections, as twenty thousand units were given in one case to a child of three and the next morning this dose was repeated. On the eighth day the membrane was gone. Of the purely pharyngeal cases twelve were treated by this method with one death. In some of these additional serum was given subcutaneously. Thirteen laryngeal cases were treated by this method mainly. Some of these

required either intubation or tracheotomy. Their conclusions are as follows. In attempting to estimate the beneficial effects of antitoxin intravenously those cases in which marked improvement occurred following intubation or tracheotomy must be discounted. Yet out of nine only one died. The other cases cannot be so easily told. Still in the whole 38 patients three only died and this seems to point to the method as having some value even over the subcutaneous method. (BIETNACK AND MUIR, *The Lancet*, December 24, 1904.)

Serum Diagnosis of Tuberculosis.—Arloing and Courmont have arrived at the following conclusions: 1. The use of homogeneous glycerinated bouillon cultures of the bacillus of human tuberculosis has enabled them to investigate the agglutinating power of fluids, especially the serum of tuberculous patients and so get the serum diagnosis of tuberculosis. 2. It has the advantages of serum diagnosis in general, (a) harmlessness; (b) ease and rapidity; (c) delicacy of reaction in early forms or where lesions are discrete. 3. In slightly advanced pulmonary tuberculosis the agglutinating power is nearly always constant, but in varying degree. The agglutinative reaction in tuberculous patients appears most often and within certain limits in inverse ratio to the gravity of the reaction. 4. In cases suffering from other diseases in which the positive diagnosis of tuberculosis cannot be made the serum reaction will reveal latent tuberculosis. 5. In patients apparently healthy the serum will show reaction corresponding to the known frequency of latent tubercular trouble. 6. A positive reaction will often reveal visceral lesions still active or lately become inactive. A negative reaction is of less value. The absence of serum reaction in advanced tuberculosis where other signs are unmistakable may confirm an unfavorable prognosis. 7. The serum test is rapid, harmless and of great value in the diagnosis of early pulmonary lesions. (A very complete bibliography on serum reaction in tuberculosis follows the article.) (ARLOING AND COURMONT, *Boston Medical and Surgical Journal*, December 8, 1904.)

SURGERY.

Under the charge of

MAX BALLIN.

Parotitis Following Injury or Disease of the Abdominal and Pelvic Viscera.—One of the rarest complications after operations for diseases of the abdominal and pelvic viscera, is parotitis. This "coeliac parotitis" has been observed after ovariectomy, perforated gastric ulcer, appendicitis, puerperal fever, intestinal obstruction, etc. The time of appearance after operation varied, in the different cases observed, from one day to 54 days after operation. The majority of cases have arisen in the first week. In about one-third of the cases both parotid glands have been involved the second following the first at an interval of about 24 to 48 hours. This kind of parotitis may end by resolution, or may go on to suppuration the latter being more frequent. As a rule coeliac parotitis does not cause much fever, but considerable pain, and interferes with feeding of the patient. Of 101 cases collected by Paget, 37 died, but in nearly every instance death was due to the primary disease or operation, and not to the parotitis. Only in two cases did the parotitis seem to be directly responsible for the death of the patient, by spreading of the suppuration beyond the limits of the gland.

As to the cause of coeliac parotitis, different theories have been advanced: (1) It was considered to be of pyæmic origin. (2) It was thought to be caused by infection of the gland, by germs from the mouth. (3) It was believed to be due to reflex nervous action (sympathy between parotid gland and genital organs). All these theories can not be applicable to all the cases recorded. The author sums up his ideas as to the etiology of this disease as follows:

1. It appears most probable that coeliac parotitis is due to the action on the parotid glands of toxic substances absorbed into the blood and derived from (a) the secretions of certain organs modified by injury or disease; (b) toxins of microbic origin (e. g., bacillus coli) absorbed either from the alimentary canal, peritoneal cavity, or bladder; (c) products of deranged digestion.

2. Suppuration is not an essential feature of the condition but is due to the fact that the parotid gland when inflamed by the action of these toxic agents forms a locus minoris resistentiæ, and becomes secondarily infected by pyogenic organisms reaching it (a) by the bloodstream; (b) by Stenson's duct.—(BRENNAN DYBALL, *Annals of Surgery*, December, 1904.)

Ethyl Chlorid as a General Anesthetic.

The use of ethyl chlorid for general anesthesia has passed the experimental stage. It seems to be safer than chloroform and probably safer than ether. The drug should be pure for general anesthesia. It is administered on a gauze compress or a special mask. It seems to be especially useful for children and in all brief surgical operations. The drug does not produce complete muscular relaxation.—(A. B. CRAIG, *American Medicine*, Vol. VIII, No. 14, 1904.)

Experimental Investigation About Increasing the Natural Resistance of the Peritoneum Against Infection.

Experiments on guinea pigs in regard to this important subject lead to the following conclusions: It is possible to increase the power of resistance of the peritoneum against infection. The danger of intraperitoneal operations can be lessened by injections of nucleinic acid, or serum of horses, or normal saline solution into the peritoneal cavity. Injection of large quantities of normal saline solution seem to be just as serviceable as the injection of the nucleinic acid. The injections are most beneficial if given 48 hours before the laparotomy. The increased protection against infection lasts about four days.—(L. BORCHARD, *Deutsche Medicinische Wochenschrift*, 1903. No. 49.)

Intra-peritoneal Injection of Horse Serum and Normal Saline Solution for Prevention of Infection in Laparotomy.

Schmidt, of Dresden, made use of the experiments of his colleague Borchard, in some colliotomies by means of a specially constructed blunt trocar. He injected 5 to 10 Cc. of sterilized horse serum plus 250 to 500 Cc. of 0.9 per cent. saline solution, into the peritoneal cavity, 17 to 19 hours before the operation. The injection caused but little pain. At the time of the operation the peritoneum showed some hyperæmia and sometimes a slight exudate. Leucocytosis was increased after the injection and reached its maximum 48 hours after the injection. That is about the end of the first post-operative day if the injection was done 18 hours before the operation. This immunizing injections seem to have a favorable influence on the post-operative course in 4 out of 5 serious laparotomies. (L. BORCHARD, *Deutsche Medicinische Wochenschrift*, 1903, No. 49.)

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

Theories Underlying Sex Determination.—So much has been written regarding the theories underlying the determination of sex, that a recent scholarly review of the subject by Webster is welcome. Webster says that over 500 theories have been advanced and although the mystery is still unsolved, most important observations and experiments have been made during the last year.

From a study of these it would appear that the most exhaustive researches in comparative and experimental embryology and physiology will be necessary before the difficulties of the subject can be elucidated. The data derived from the study of human beings are scanty and of little value; most statements are speculative and all attempts to regulate the sex have met with failure.

Sex is fixed at the beginning of the second month, hence we must look to conditions existing during the first month of gestation or at the time of the meeting of the spermatozoon and the ovum or to the influences affecting either or both before conception, in order to find an explanation of sex determination in the human embryo.

Webster reviews the most important theories, such as the age of the parents at the time of conception and the amount of the food supply to the mother during pregnancy. These are found to be inadequate.

The most satisfactory theory which can be applied to the higher vertebrates is that which supposes the existence of two forms of ova, one destined to maleness and the other to femaleness, although it is impossible to establish any such differentiation by microscopic study or chemic analysis. If this supposition be true it is quite futile to expect that any alteration may be brought about by dietetic or other influences made to affect the human female either before or during gestation.—(*Am. Med.*, Dec. 10, 1904.)

Cystic Degeneration of the Ovaries.—Findley, of Chicago, has written an important paper on this subject. After sketching the history of the operative treatment, the results of a study of 180 cases from Webster's clinic are given. Only 39 of these cases were uncomplicated. In the remaining 141, in which there were other lesions, it was impossible to estimate the rôle played by the cystic ovaries. An analysis of the uncomplicated cases showed general pelvic pain in 16; pain in the region of the left ovary in 10; pain in the back in 19 cases. As a rule, the pain was referred to the affected ovary. When this was situated behind the uterus, there was

usually backache. In every case pelvic pain was complained of. Tenderness was the general rule. In 18 of the 39 cases there was dysmenorrhœa, the pain usually preceding the menstrual flow and continuing throughout the period. In 34, the flow was normal or decreased; in 5, there was menorrhagia. In 11, general nervous symptoms were complained of.

The author sums up the subject as follows:—
(1) Cystic degeneration is almost always the result of chronic inflammation.

(2) One or more ripened follicles are not to be mistaken for follicular degeneration.

(3) The symptoms are pelvic pain and tenderness, dysmenorrhœa, sterility and general nervous phenomena. Too much stress is not to be laid on complaint of pain and tenderness, for the explanation frequently lies in the presence of associated lesions, or in an instability of the general nervous system.

(4) Cystic degeneration doubtless contributes to a general nervous state, but only on account of the local discomfort.

Should we operate on cystic ovaries? The frequent occurrence of symptoms referable to the ovaries justifies the practice of resecting or cauterizing and sometimes of removing the ovary, when the abdomen has been opened for the relief of other pelvic lesions. Such a practice will frequently contribute to the complete relief of the patient.

The question of operating upon uncomplicated cases is more debatable. The lesion frequently has no clinical identity and therefore should not be interfered with. On the other hand, in a definite proportion of cases, there is sufficient local discomfort to justify both patient and surgeon in interfering.—(*Am. Jour. Obs.*, June, 1904.)

Post-operative Embolism.—For the purpose of obtaining information regarding the factors involved in cases of post-operative embolism, Dearborn sent letters to 25 of the surgeons in and about Boston. The replies seem to demonstrate that thrombosis and embolism are more frequent after pelvic operations than elsewhere. It is possible also that cases of pleurisy, pneumonia and pulmonary abscess are due to emboli. Small emboli run a favorable course while large ones cause speedy death by syncope or asphyxia. Any sudden increase in pulse rate, with normal temperature, should remind one of the possibility of thrombosis, and absolute rest in bed must be insisted upon.—(*Ann. of Gyn. and Ped.*, Nov., 1904.)

THERAPEUTICS AND PHARMACOLOGY,

Under the Charge of

W. J. WILSON, JR.

Treatment of Rheumatism.—In acute articular rheumatism, the patients should wear flannel and sleep between blankets. The best single article of diet is milk, which may be diluted with an alkaline mineral water. Thirst should be relieved by the free ingestion of fluid. Often relief may be obtained by fixing the joint—sometimes simply by wrapping the affected joint in cotton or hot cloths. Various liniments may be used, which are of value chiefly through massage and the application of heat. For this purpose, I have found a good application of an ointment composed of equal parts of salicylate of sodium, lanolin, and lard, to be applied hot twice a day. Pain may be relieved by the use of a blister or a light application of the Paquelin thermo-cautery. Salicin, salicylic acid, and the salicylates, for a time regarded as specifics, often suffice to relieve the pain and probably neutralize toxins. The oil of wintergreen mxx. in milk every two hours, often gives good results. The salicylates are probably best given with alkali, in sufficient dosage to keep the urine alkaline in reaction. Severe pain may demand opium, but in the form of Dover's powder, or morphine. As a rule, one of the coal tar analgesics will suffice. Excessive fever may be controlled best by bathing. Tumultuous action of the heart may be relieved by the application of the ice bag. The heart must be watched and any affection of that organ properly treated. Finally, both as a curative and prophylactic measure, the throat should be carefully inspected, and any angina, especially tonsillitis, should receive the proper treatment. In one case in which *striptococci* was found in pure culture in the urine, antistreptococci serum speedily effected a cure.

In chronic articular rheumatism, iodine in the form of iodide of potassium or Lugol's solution is probably the best internal remedy. Next to this, I would place the tincture of colchicum gttss. x. The salicylates may relieve the acute pain or exacerbations. Much may be accomplished by Swedish movements, and the local application of heat and friction. Ointments of potassium iodide, and ichthyol and iodine have been used. In some cases, I have secured rather striking results through the intra muscular injection of iodine in sesame oil. For this purpose, I use a 25 per cent. solution and inject

1.0-4.0 cc. deep into the gluteal muscles, repeating the injection every second day. It is better to begin with the smaller dose, and make sure there is no idiosyncrasy against the drug. Often relief may be secured by painting the part with pure analeptics, aquapuncture, or morphine. Some is a useful preparation for this purpose. The oil of wintergreen, or menthol in a 25 per cent. solution in alcohol, is also useful as a topical application. The value of hot fomentations to the joints is well recognized even by the laity. The local application of heat in rheumatism has long been recognized as a valuable adjunct in the treatment of the disease, but from the exclusive use of hot air or "baking" in chronic rheumatism, I have observed only two cases that were permanently cured. Often the best results may be obtained by climatotherapy, especially by prolonged residence in a warm climate, or at least by wintering in such a clime to avoid cold, damp weather.

In gonorrhoeal rheumatism, most may be accomplished by the use of heat, electricity, friction, and massage. Further treatment is the same as for chronic rheumatism. It is important that chronic gonorrhoea receive attention to prevent continuous infection.

In muscular rheumatism, the muscle should be put at rest, e. g., by strapping the chest with adhesive plaster in cases of pleurodynia. Heat, friction, and electricity are probably the best remedies. Pain may demand one of the synthetic analeptics, aqua puncture, or morphine. Some cases may be cut short by a hot bath early in the disease. In chronic cases, iodide of potassium is the best single remedy.

In nodular rheumatism, arthritis deformans, the pain may be relieved by hydrotherapy and massage, which also assist the nutrition of the muscles. Electricity is sometimes of value. Arsenic probably does good as a tonic. Iron may be indicated by anæmia. Iodine, best in the tincture, gttss. or the iodide of potassium or sodium given in milk is worthy a trial. The salicylates or salol may be used during the acute exacerbations, massage and the local application of hot air sometimes produce good results. Blisters are of value. Often a change of climate is advisable.—MOLSBURY, *N. Y. Med. Record*, Dec. 10th, 1904.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

The Inhibitory Action of the X-Ray upon Malignant Growths.—In his paper Johnston calls attention to the fact which is not yet accepted fully by some of the members of the Medical Profession, to wit; that the radiation from an excited Crookes' tube is capable (if applied in accordance with well defined technic) of inhibiting the rapidity of growth in malignant tissue, and in a certain proportion of cases this inhibition becomes permanent and is followed by the disappearance of the growth which may be replaced by normal scar tissue, constituting a more or less permanent clinical cure.

This inhibitory action is not a constant result of the application of the X-ray. It is sometimes absent. Indeed, if the proper technic is not employed it may be replaced by a seeming increase in the activity of the pathologic tissue.

This inhibitory action is to a degree in direct proportion to the dosage administered, which dosage consists of the following factors: Length of exposure, frequency of exposure, distance from tube, penetrating of the ray and strength of exciting current, also quality of such current as influenced by variation in generating apparatus.

A general characteristic of malignant tissue is its enormous rapidity of cell proliferation. This is checked and in some instances stopped by radiation. The newly formed tissue, possessed of a low degree of vitality and physiological resistance to injury and endowed with poor reparative power, may even, and often does, undergo tissue death, and is absorbed or thrown off en masse, and replaced by connective tissue. If this process be complete throughout, a clinical cure must be the result; if incomplete, the growth is but temporarily inhibited and will later take on renewed activity. This effect is local; there is no antitoxin generated which circulates through the body to have effect at distant points upon foci which have not been exposed to radiation. No matter how thoroughly the original growth may have been treated, metastatic deposits will go on as usual unless found and destroyed. The difficulty of an early recognition of metastatic foci is responsible for a large part of the failures in other than primary cases. (GEO. C. JOHNSTON, *Pennsylvania Medical Journal*, December, 1904.)

Experimental Syphilis.—Metchnikoff and Roux, followed by Lassar and Neisser, have demonstrated conclusively, by numerous and diversified experiments, that syphilis may be transmitted by inoculation to chimpanzees and other apes. It has been found that in the chimpanzee

the period of inoculation varies between twenty-two and thirty-seven days; and, furthermore, that the disease may be transmitted from chimpanzee to chimpanzee. This means that it now has become possible to subject the "virus" or "contagium" of syphilis to more penetrating investigations with the view to obtain some idea of its nature, and thus pave the way for its actual demonstration.

So far, minute study of the material known to contain the infectious agent of syphilis has not yielded any information—organisms have not been found in the scrapings and juices of chancres and other lesions in either man or anthropoid. The thought naturally suggested itself that the syphilitic virus might be filterable, like the virus or organisms of bovine peripneumonia, of food-and-mouth disease, of yellow fever, etc. But the experiments of Klingmüller and Baermann and of Metchnikoff and Roux show that the cause of syphilis does not pass through filters that permit the passage of the organism of peripneumonia, while small known bacteria are held back. Hence the virus of syphilis does not seem to be filterable, whatever the reason for this may be. Metchnikoff and Roux, then, show that the syphilitic virus completely loses its virulence when heated for one hour to 51 C. On the other hand, pure glycerin seemed to have no effect on the virus. They found, further, that the heated and filtered inactive materials did not have the power to protect chimpanzees against virulent virus. From this result and from certain other considerations, Metchnikoff and Roux were led to believe that an attenuated virulent virus, suitable for the purposes of a vaccine, might perchance be obtained from animals with a relatively slight susceptibility to syphilis.

For this purpose, extensive studies of syphilis in lower forms of apes and of monkeys seemed indicated, and Metchnikoff and Roux as well as others have accumulated quite a number of observations anent syphilis in some of the catarrhine monkeys of the Old World. These observations are as yet, however, wholly preliminary and serve for orientation. Perchance, before long indications may be secured that will point out definitely the direction along which extensive experiments must be made. Undoubtedly, the renewed interest in syphilis caused by the demonstration of its transmissibility to apes and to monkeys sooner or later will lead to more light being thrown on the many obscure questions connected with its etiology. (*Journal American Medical Association*, January 7, 1905.)

DISEASES OF THE NERVOUS SYSTEM,

Under the Charge of

GUY L. CONNOR.

Brain Tumors.—The causation of tumors of the brain is obscure. They occur more commonly in young people and in the male sex. As many as sixteen or seventeen different pathological varieties of growth have been named. Of these the most important and most frequent are gliomata, sarcomata (including endotheliomata), tubercles, and syphilitic gummata.

The symptoms of brain tumor are classified as general and focal. The general symptoms are due to intracranial pressure produced by the presence of the tumor and by the increased amount of cerebrospinal fluid. These general symptoms may be classed under six heads:

1. **HEADACHE**—Usually this is the earliest symptom and occurs in over 50 per cent. of all cases. The severity of the pain is characteristic. It is lancinating or boring and may be periodic. Often its location is indicative of the position of the tumor.

2. **VERTIGO**—This is present in about one-half of the cases. It is most frequent in tumors of the cerebellum.

3. **VOMITING** occurs without reference to taking of food, without nausea or pain and is usually of a projectile character. It is present in more than 50 per cent. of cases.

4. **OPTIC NEURITIS AND BLINDNESS** is present in 60 to 80 per cent. of all cases and may be an early or a late symptom. It is one of the most important signs.

5. **MENTAL OR PSYCHIC SYMPTOMS** are said to be present in nearly all cases. Some of the more definite mental symptoms are epileptiform mania, melancholia and depression, confusion and hallucinations, mania, chronic paranoia, and convulsions, either local or general.

6. **CONSTITUTIONAL DISTURBANCES.** Anorexia, abnormal increased appetite, thirst, emaciation, slow and irregular pulse, etc., are found.

The focal symptoms are said to be of two kinds: direct or destructive, those which are due to the destruction of tissue by the tumor itself and indirect, those which are caused by the pressure of the tumor upon the immediately surrounding structure of the brain. The focal or localizing symptoms vary with the position of the tumor. It is upon this that the diagnosis of the location of the new growth is based. The focal symptoms, which are absolutely diagnostic, are:

1. **PARALYSIS OR SPASM**—Motor area or possibly subcortical, affecting motor fibres.

2. **MOTOR OR SENSORY APHASIA**—Broca's area, or cortical center of sight in occipital lobe, or of hearing in left temporal lobe.

3. **HEMIANOPSIA**—Occipital lobe or optic tract.

4. **CEREBELLAR STAGGERING (ataxia)**—cerebellum.

Those which are helpful but more or less doubtful are:

1. **LOSS OF SENSE** of position and stereognosis—parietal region.

2. **DEFINITE MENTAL CHANGES (psychoses)**—prefrontal area. (NEWTON EVANS AND BENTON COLVER, *The American Journal of the Medical Sciences*, January, 1905).

Spastic Paralysis and Syphilis of the Cord.—(Conclusions)—I—Erb's syphilitic spinal paralysis is a symptom group in which the patient presents (a) spastic paralysis of the lower extremities, (b) spastic gait, (c) moderate loss of power, (d) moderate or no rigidity of the affected muscles, (e) exaggerated tendon reflexes, (f) disturbance of sensation (slight or absent), (g) weakness of bladder, (h) no symptoms of disturbance of brain, cranial nerves or pupils.

2. Existence of Erb's symptom group of syphilitic spastic spinal paralysis must be conceded.

3. A corresponding and constant anatomical lesion has not been found.

4. Although Erb is inclined to consider the affection as a post syphilitic toxic disease, analogous to locomotor ataxia, we can not but regard this position with doubt owing to the ill-defined limitations of the symptom group itself and because of the admittedly variable character of the post-mortem findings.

5. The writer regards the symptom group as merely a stage of a syphilitic meningo-myelitis causing a transverse syphilitic myelitis.

6. The syphilitic infection of the cord during its activity as an infection process, is through the meninges and vessels.

7. It would seem that syphilis during the infectious stage affects by preference the motor pathways. How this excessive involvement of the pyramidal tracts arises, must for the present remain a matter of speculation. (F. X. DERCUM, *The Journal of Nervous and Mental Diseases*, January, 1905).

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Original Articles

PHYSIOLOGIC THERAPEUTICS IN GYNECOLOGY.*

J. H. KELLOGG,
Battle Creek.

There is certainly no branch of medicine in which non-medicinal or natural curative agents, which are included in what is known as physiologic therapeutics, render more important service than in the treatment of the diseases peculiar to women. Of these non-medicinal agents a few have long been known to the profession, and are in daily use by medical practitioners everywhere. I need only mention as examples the various forms of pessaries, abdominal supporters, and vaginal irrigation, in addition to surgical procedures of all sorts. But there are many highly valuable physiologic agents and methods which are not so commonly employed, and which are capable of rendering the greatest service, both in private and in hospital practice. It is the purpose of this paper to point out a few of these.

As entitled to first place among these practical measures, I mention hydriatic procedures. Aside from rest, in acute

inflammations, and curettage in chronic endometritis, there are no means by which acute and chronic pelvic inflammations may be so effectively combated as by the simple measures with which rational hydrotherapy acquaints us.

In a paper read before this section at the annual meeting of the State Medical Society held May 16, 1901, I described a considerable number of hydriatic procedures which are especially valuable in gynecology, and pointed out their indications. I will not burden this paper with a repetition of what was presented in the paper referred to.

I only desire to call special attention to a few simple methods which I find of great practical value in my daily work. First, a few words in relation to vaginal irrigation, a simple hydriatic measure which is perhaps more generally employed by gynecologists than any other. It is hardly necessary to say anything about the technique of this procedure, as this is well presented in most of our recent textbooks on gynecology; but it is safe to say that the application is quite too frequently

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made in a very indifferent manner, so that the excellent results which might be obtained by this valuable remedy are not secured. It is especially important to pay more attention to the point of temperature.

When the purpose of the application is to relieve pain, the application should be as hot as can be borne. It may begin at 104° or 105° , and should be gradually increased to 115° to 120° . A temperature of 122° will sometimes be tolerated. It should be remembered that the temperature of the water falls a little in passing through the apparatus. An allowance of two or three degrees should be made for this loss. Too much importance and emphasis cannot be laid upon the necessity for giving exact attention to this matter of temperature, for a variation of a very few degrees will often make a radical difference in the result. The duration of the douche should be five to ten, or even fifteen minutes. It may be repeated as often as necessary, two or three times a day, or every hour or two, as the case may require.

The efficiency of this measure in relieving pelvic pain is due to the specific influence of heat. Experimental inquiry has shown that heat inhibits pain. Just how or why cannot always be explained; but the fact is known that through the temperature nerves a reflex influence is exerted which somehow lessens nervous sensibility. This fact explains the wonderful effect of hot applications to the cutaneous surface for the relief of visceral neuralgias. The larger the area to which the application is made, of course, the greater is the effect produced. But in many cases great relief is afforded by a small hot application made over the seat of pain, or to the skin area which is re-

flexly related with the internal part which is the seat of pain. Such a reflex relation exists between the vaginal mucous membrane and the pelvic viscera. A reflex relationship of the same sort exists between the pelvic organs and the skin covering the pelvis, the buttocks, and the thighs, especially the inner surfaces, and the feet; hence the efficiency of hot vaginal irrigation in relieving pelvic pain may be greatly increased by a simultaneous application of heat to any or all the surfaces mentioned.

It is well to precede the hot douche by a very hot sitz bath combined with a foot bath at a still higher temperature. The temperature should be, for the sitz, 106° to 110° ; for the foot bath, 110° to 115° . The duration should be five to fifteen minutes. The head should be protected by a cheese cloth compress wet in water at 60° , or less, and applied to the face and neck. Ladies will not in general permit the application of cold water to the hairy scalp. The vaginal irrigation may with good effect be administered simultaneously with the sitz.

The prolonged very hot vaginal douche is also highly valuable as a means of overcoming vasomotor spasm in certain cases of amenorrhea due to local anemia, resulting from irritation of the vasomotor centers. Krull showed that a temperature much above 104° has the effect to produce a paralysis of the uterine vessels which persists for quite a long time after the application.

I have devised a simple apparatus for administering a graduated hot douche consisting of two reservoirs, one above the other. The lower reservoir is filled with water at any temperature desired for the beginning of the application. The upper reservoir is filled with boiling

water. A stop-cock is placed in the bottom of the upper reservoir by means of which the hotter water of the upper reservoir may be allowed to flow into the lower reservoir at any desired rate, thus regulating to a nicety the rate at which the temperature shall be made to increase.

When it is desired to increase the amount of blood through the pelvic viscera, short applications of lower temperature may be employed, as 80° to 60° , for three to five minutes. Still better effects may be obtained from alternate applications. Employ water at a temperature of 106° to 115° in alternation with water at a temperature of 70° —twenty seconds each.

The most convenient method of applying the alternate douche is to employ two fountains, the tubes leading from which are joined by a Y-connection to a short piece of rubber tubing to which the vaginal tube is attached.

In cases of pelvic congestion of a very pronounced degree, and in which pain is not a prominent symptom, the prolonged cold douche may be employed with very great advantage; temperature, 70° to 60° ; duration, 10 to 20 minutes.

The patient's sensations are a most excellent guide in respect to the temperature which should be employed. If pain, backache, dragging sensations and other discomforts are relieved, the application has done good; if these symptoms are aggravated, the temperature or duration of the application should be modified. Very often the best results may be obtained by a very hot vaginal douche, 110° to 115° for five minutes, followed by a prolonged cold sitz bath at 75° to 65° for eight to twelve minutes, accompanied by constant rubbing. A very hot foot bath should be administered simultaneously with the sitz.

The effect of this application is a transient dilatation of the pelvic vessels followed by vigorous and prolonged contraction. It is very excellent for cases of chronic metritis with erosion, relaxation of the vaginal walls, and cervical and vaginal catarrh.

The prolonged cold sitz bath, 75° to 65° , eight to twelve minutes, either with or without preparatory vaginal irrigation, is a most valuable measure in a great number of so-called chronic pelvic inflammations and congestions. It is contra-indicated, however, in cases in which pain is a marked symptom, in amenorrhea, in amenic conditions due to extensive exudates from perimetritis and parametritis, and in cases in which constipation due to pseudospasm of the colon is present. It is also contra-indicated in cases of inflammation of the bladder. Cold increases vesical tenesmus.

The revulsive sitz is one of the most effective means of relieving backache and other pains and discomforts which are commonly present in chronic pelvic disorders. It consists of a short, very hot sitz, accompanied by a still hotter foot bath, followed by a very short application of cold water to the parts which have been immersed. The temperature for the sitz should be 110° to 115° ; for the foot-bath, 112° to 120° ; duration three to five minutes. At the close of the bath, the patient may stand up while a pailful of water at 70° is dashed over the hips, first one hip, then the other. The water should not fall directly upon the hypogastrium. The patient should remain standing in the foot bath while still colder water is dashed upon the feet. The patient then lies down and receives a cold towel rub or a cold mitten friction to tone the vessels of the general cuta-

neous surface and produce a general tonic effect. All hot baths should be followed by some cold application of this sort, to antagonize the depressing effect of heat upon the nervous system. Even a hot vaginal douche will often produce a very depressing effect which must be removed by some cold, tonic application.

The influence of cold in antagonizing the effects of heat was well shown in some experiments I made some time ago with a very strong young man who was kept in a hot bath until he became so weak that he required an assistant on either side to enable him to stand upright. Just before the hot bath his strength had been tested by the Universal Dynamometer, and found to be considerably above the average. Immediately after the bath the strength was again tested and found to have been reduced more than one-third. A short, cold shower bath and spinal douche were then administered for about three minutes, and the strength tested again. The total lifting power was found to be greater than before the bath. This effect of cold in removing the depressing effects of heat is immediate—practically instantaneous. It is very important to keep this fact constantly in mind when employing hot applications for the relief of local ailments as well as in the application of general hot baths; for a local hot application, as a fomentation over the abdomen, a hot enema, or even a hot foot bath in the case of a very feeble, nervous woman, produces very pronounced depression. If the patient is left in this condition, several hours may elapse before the nervous system will recover its normal tone; but by the application of the cold towel rub or cold mitten friction, employing water at 60° or less, the nerve tone

may be restored at once, so the patient will feel refreshed and strengthened.

I may remark at this point as well as any, perhaps, that in my practice I find general cold applications quite indispensable in the treatment of all sorts of gynecological cases. I usually make these applications twice a day, and sometimes three times a day. At each application the patient receives a little lift, and that the effect is not a mere transient nervous impression is shown by the steady gain from day to day in general strength and tone, the improvement in appetite, the increase in hemoglobin and blood count when these are below normal, and the general feeling of well-being. The patient soon recognizes this and learns to appreciate it, even though the applications may be at first slightly dreaded.

Great care must, of course, be taken in beginning the use of cold water in nervous cases. The temperature should not be too low; the amount of surface treated should be small; the application should be short. In an extremely feeble and nervous case, I have the nurse begin with bathing the hands, face, and arms with cold water applied with the hands dipped every few seconds in a bowl of water at 60° standing conveniently near. At the next application the cold hand rub may be extended to the chest; then the arms, chest, and legs, and the back may be included; so in two or three days the whole surface may be treated. Next, a moist mitt, made of moderately coarse cloth, is employed, and the cold towel rub, consisting of a towel wrung out of cold water and applied to the surface and rubbed. The towel is rubbed rather than the skin, and this is rubbed until warm. Still later, when the patient is able to get about, the rubbing wet sheet is employed, and the

shallow bath is employed, and finally, the general douche. The skill of an experienced nurse, one who is well trained in hydiatic procedures, is required to graduate these applications suitably in a very nervous patient.

When visiting a Southern city some months ago, I was called in consultation to see a patient, to whose bedside, some time previously, one of our most eminent American physicians was called. The patient, a woman nearly seventy years of age, had very serious pelvic troubles, and was extremely neurasthenic. The prescription was a cold wet sheet pack. She described the application. She said, "The nurse was to spread a blanket upon the side of the bed, then a sheet wrung out of very cold water was to be spread upon the blanket, and I was to lie down upon the sheet and to be wrapped up in it. The doctor said, "she will scream and make a great fuss, but tuck her in tight and she will soon warm up." "But," she said, "I did not scream, although I wanted to; but neither did I warm up. I lay shivering in that wet sheet for more than an hour; then the nurse got frightened because I looked so bad, and took me out, and I never have taken another." This patient greatly needed tonic hydiatic applications, but the application should have begun with a wet hand rub and cold mitten friction, and should have been gradually increased in vigor from day to day by the graduated plan which I have elsewhere described.

There is no class of patients in which care in the graduation of hydiatic applications is more important than in weak patients suffering from chronic pelvic disorders, especially those over-coddled, cultivated patients, whose nervous systems are abnormally sensitive, and who usu-

ally have weak hearts, feeble, undeveloped muscles, inactive skins, and are highly sensitive.

Hydrotherapy is the ladder by means of which these feeble patients with low resistance may be enabled to climb up to health; but care must be taken that the rounds of the ladder are near enough together so that the feeble, vital resources of the patient may not be too severely drawn upon in the effort.

Leaving out surgical procedures, I believe the great majority of gynecological cases are suffering from the results of feeble physical development and low vital resistance. Chronic vaginal catarrh can not exist so long as the vaginal mucus retains its germicidal qualities, and the vaginal mucus is likely to be normal so long as the blood is of high quality and sufficient in quantity. The lowering of the quality of the blood as the result of a sedentary life and a vicious dietary, causing an accumulation of tissue wastes, and the consequent lowering of the blood alkalinity, may so diminish the germicidal qualities of the vaginal mucus that the pus-producing germs which are always present upon the skin in great numbers, easily find their way into the vagina, and multiply there, producing a purulent catarrh. No amount of local treatment will permanently cure this condition without an improvement in the quality of the blood. By outdoor exercise, a proper dietary, general tonic baths, and other recuperative measures, a multitude of gynecological disorders disappear of themselves without local treatment of any sort with the improvement of the patient's general health, which, from an outdoor life—swimming, sun-baths and sand baths in an outdoor gymnasium, bicycle riding, horse back riding, mountain climbing, sea bathing

and a natural life; in short, a change from the artificialities of our modern life to natural conditions, is often sufficient to so reinforce the vital activities of the body as to enable them to remove the morbid conditions present without local applications of any sort; although in all cases suitable local measures are always helpful in facilitating the cure. But it must be emphasized that these local measures alone will never effect permanent results in cases in which the local disorders are due to general causes.

My observation has convinced me that this is a matter to which gynecologists as well as other specialists, give too little attention. The physician does not cure. The body heals itself. As Dietl, the pupil of Rokitansky, said more than half a century ago, "nature heals. This is the first law of therapeutics, and one which we must never forget. Nature creates and maintains, therefore she must be able to heal." It is the blood that heals; hence the thing to be aimed at in all cases is the production of better blood, and improvement of the general and local circulation. Exercise strengthens the heart, and by developing the muscles, diverts blood into the muscular system, and thus relieves congestion of the pelvic viscera.

I am persuaded that pelvic disease in women, as well as prostatic disease in men, is largely the result of habitual prolonged sitting. The accumulation of blood in the pelvic viscera is not due to the excessive heat resulting from sitting, but to pressure upon the external vessels. The fleshy parts which are under pressure while a person occupies the sitting position are supplied with large vessels, which are, for the most part, derived from the internal iliac, from which vessel also the pelvic organs derive their blood supply.

When by prolonged pressure the blood circulation in the external branches of the internal iliac is considerably diminished, the result must be collateral hyperemia, which in time becomes passive congestion of the internal parts which derive their blood supply from the same source.

When the blood vessels of the legs are contracted, there is less blood in the feet, and more in the head and other portions of the upper part of the body. The same relations exist between the external structures covering the plevis and the internal parts. Thousands of women are suffering constantly with cold feet and legs, especially during the cold season, from insufficient clothing. Internal congestion is certain to result from contraction of the external branches of the common iliac, forcing a disproportionate amount of blood into the internal parts of the pelvis. All these evils must be corrected. One of the most effective means of relieving this condition is carefully graduated exercise, one of the very best of which is swimming, for this produces tonic effects from the contact of the cold water with the skin, as well as exercising the muscles. Light gymnastics, manual and mechanical Swedish movements, and massage are other measures of the greatest value.

I know of no means of influencing the pelvic circulation more effective than the hot hip and leg pack combined with ice-bags applied to the hypogastrium. The hips and legs are enveloped in a blanket wrung very dry out of water as hot as can be tolerated. Then four small ice-bags, or two large ones, are slipped under the upper edge of the blanket and applied to the hypogastrium on either side, reaching down into the groin. The patient is then completely enveloped in a double woolen blanket. At the end of fifteen or twenty

minutes the application is terminated with a cold towel rub or a cold mitten friction. In cases of acute pelvic inflammation the derivative effect of this application may be continued by the application of heating compresses to the legs in connection with ice-bags to the hypogastrium. Heating compresses are applied as follows: A towel is wrung out of cold water as dry as possible and applied to the leg and covered with mackintosh. The leg is then snugly wrapped with several thicknesses of flannel. The application should extend from the feet to the body, and the effect is increased if the compress also covers the buttocks. If necessary, hot water bottles may be applied about the legs so as to secure immediately warming up of the compress. In cases of chronic pelvic congestion in which patients complain much of pain and heaviness, great relief may be obtained by the use of heating compresses alone, applied at bedtime and worn during the night. On arising in the morning the compresses are removed and the legs well rubbed with towels wrung out of cold water.

Observation of many thousands of cases in which I have carefully noted the conditions present, has fully persuaded me that weakness of the abdominal muscles is responsible for a multitude of morbid conditions in the pelvis in both men and women; but particularly in women, for the reason that weakness of the muscles of the trunk is almost universal, in civilized women, owing to their comparative inactivity. Many men are sedentary, but nearly all women spend their lives indoors and under conditions which do not secure proper development of the muscular system. The abdominal muscles and other muscles of the trunk are still further weakened by improper dress which,

through compression of the waist, and especially by the encasement of the trunk in a rigid form prevents proper activity of the muscles of this part of the body. It is very rare indeed to find a woman who has well-developed abdominal muscles. Only laboring women, and those who have had the advantage of gymnastic training, have these muscles well developed.

Undeveloped abdominal muscles, unless over-excited by some internal irritation, are not only feeble, but lacking in tone. This is especially true in feeble women who have borne children. The over-stretching of these feeble muscles, which results from gestation, generally leaves them in a feeble, relaxed state in which they afford almost no support to the abdominal viscera. The result is enteroptosis and displacement of the uterus and its appendages. In operations upon the uterus and appendages, I have many times found the center of the transverse colon lying at the level of the sigmoid flexure, both kidneys afloat, and not a single large viscus in the abdominal cavity in its proper position.

Numerous evils are the necessary outgrowth of these conditions which are attributable to their relaxed condition of the abdominal muscles. Of special significance are the mechanical displacement of the bowels and other organs which force the pelvic viscera backward and downward, the intestines slipping over in front between the uterus and the bladder. This, I am confident, is the origin of retroversion in not a small number of cases.

The displacement of the various viscera necessarily gives rise to abnormal tension upon the sympathetic nerves which run out into them through the membranous structures which anchor them to the pos-

teri or abdominal wall. Whenever the patient is upon her feet, these nerves are under constant strain, giving rise to reflex pains, and irritations of various sorts. This is the origin, in most cases, of the excessive backache from which so many women suffer when on their feet, and the dragging sensations through the hypogastrium. But more remote symptoms are equally common; particularly the distressing sensations at the vertex, the back of the neck and between the shoulders, pains in the limbs, and other discomforts.

But the most serious consequence of a relaxed condition of the abdominal muscles is chronic passive congestion of all the viscera below the diaphragm. The mesenteric and portal vessels are capable of holding all the blood in the body. An animal may be easily bled to death by tying the portal vein. It is bled into its own abdomen. When the portal and mesenteric vessels are over-filled, other structures suffer. The brain is poorly nourished; the muscles are anemic and necessarily weak, the skin is pale, and the whole body is brought into an enfeebled and disordered state. The chronic passive congestion of the pelvic viscera as a necessary consequence of the loss of muscular tone which permits nearly constant and complete relaxation of the abdominal muscles. Intra-abdominal pressure is diminished to such a degree that the chief obstacle to the indefinite expansion of the vessel walls is the thin structure of these walls themselves; and the consequence is a great accumulation of blood in the abdominal cavity, and particularly in the pelvic cavity. The permanent cure of nine-tenths of the chronic ills from which women suffer would be effected by the restoration of the normal balance of the circulation.

Uterine congestion can not possibly be cured by vaginal douches, the application of medicated pledgets, or by any other local procedure. The surplus blood of the abdominal and pelvic cavities must be gotten rid of. The normal support of the vessels must be restored. This can be accomplished in only one way, namely, by the development of the abdominal muscles, and the restoration of their normal tone.

The blood may be temporarily diverted from the pelvic and abdominal regions by muscular exercise. Hot baths, massage, and other measures divert the blood into the muscles and the skin, which together are capable of holding all the blood of the body, and which constitute two great reservoirs which may be used for the drainage of internally congested parts. But such derivative procedures must be more or less temporary in their effects. Although congested when active, the muscles again become anemic when at rest. The reddened skin holds an enormous amount of blood, but when the cause of the vaso-motor dilatation has been removed, the returning pallor indicates the return of the vessels to their usual state. By prolonged cold sitz baths and other procedures, the pelvic and abdominal vessels may be contracted, and thus the surplus blood may be driven into other parts. Great benefit may thus be derived from local hydropathic applications, but these applications must be repeated several times daily and during a long period to secure definitely beneficial results. Abdominal massage, by exciting the vaso-constrictors of the pelvic and abdominal vessels, lessens the congestion of the viscera occupying these parts, while at the same time raising the external blood pressure as shown by the sphygmomanometer. But the only positive and perma-

ment remedy for this condition is the development of the abdominal muscles and the restoration of intra-abdominal pressure. This may be readily accomplished in most cases by special exercises and by applications of electricity.

Leg raising exercises, with the patient in the supine position, practiced two or three times daily will, in the course of a few months, wonderfully increase the strength of the abdominal muscles; not only the strength, but also the tone of the muscles increases as the tissues approach a state of healthful vigor and activity. Walking upon tiptoe, hopping, jumping, rowing, and especially swimming, are most excellent exercises for the abdominal muscles. By special breathing exercises, the abdominal and pelvic vessels may be almost instantly, though temporarily, emptied. Deep breathing greatly assists the mesenteric and portal circulation. As the diaphragm descends, the viscera are compressed against the abdominal wall, thus forcing the blood along in its channels while opposing the further entrance of blood into the arteries. At the same time the air in the chest cavity being rarefied, the pressure upon the heart and the large vessels near it will be diminished, producing a decided suction effect upon the veins. If the abdominal muscles are well contracted, and compression is made upon the abdomen during inspiration, this effect is greatly increased. I usually instruct patients to practice breathing with the hands clasped over the abdomen while taking deep inspirations. The same effects may be produced by breathing while lying down upon the back with a shot bag or weighted compress lying upon the abdomen. A large water bag may be used for the purpose, or weights of any sort; or,

if the patient is very feeble, a nurse or other attendant may place both hands upon the abdomen while the patient breathes, the patient being instructed to force the abdominal walls against the hands of the nurse as firmly as possible.

Another method is to have the patient lie with the face downward, resting the upper part of the trunk upon the elbows with the head supported by the hands. In this position, the abdominal muscles are stretched, and the viscera are compressed. If the patient breathes deeply at the same time, a very strong compression is brought to bear upon the viscera, thus emptying them of blood.

An exercise which I employ, and which I find most effective of all, is to have the patient empty the lungs, then close the throat, and make an effort to inspire by raising the chest as high as possible, but without permitting any air to enter the lungs. This drags the viscera upward while at the same time decongesting them. If, at the same time, the hands are clasped and carried close along the body upward above the head as high as possible, the effect is still further increased.

Another excellent plan is to have the patient stand against a wall,—the heels, hips, shoulders, and head being held firmly against the wall,—and to breathe deeply in this position.

The application of electricity is an excellent means of developing weakened abdominal muscles. The static, the galvanic, the Faradic, or the sinusoidal current may be employed. The application must be made in such a way as to throw the muscles into vigorous contraction at frequent intervals, two to twenty times a second. The slowly alternating sinusoidal current administered by means of

suitable apparatus, is the most efficient way of securing rhythmic muscular contraction. I have employed a current of this sort for this purpose for the last fifteen years.

In most cases it is necessary, while the muscles are being developed, to have the patient wear a proper abdominal supporter. The old fashioned London supporter answers fairly well in some cases, and sometimes an ordinary flannel bandage is found sufficient; but in many cases a more efficient means of support must be employed. After experimenting with many different kinds of supporters, I had made a very simple supporter which acts upon the principle of the ordinary spring truss. This can be employed in all cases, and is as efficient in the case of thin persons who are not helped by supporters which are held in place by bands, as for fleshy persons. Almost any sort of bandage is more or less effective. In cases in which there is a decided forward stoop, the supporter is modified by the addition of shoulder straps and perineal bands by means of which the weakened spinal muscles may be assisted, and constitute a sort of natural body trainer, correcting the bodily deformity while the muscles are being developed.

In cases of visceral pain, either pelvic or abdominal pain, phototherapy may render very valuable service. Both the incandescent and the arc light may be advantageously employed. I use the incandescent light by means of a simple instrument, which I call a Photophore, which is applied to the hypogastrium, or the lower part of the back. The tissues may be by this means subjected to a much higher temperature than when moist heat is employed, and the heat is much more penetrating. The radiant energy passes for some distance into the tissues before

being converted by the resistance which they meet, into sensible heat.

The arc ray is useful not only as a means of applying heat, but as a convenient method of producing most effective counter-irritation, and hyperemia of the skin through which a powerful derivative effect is produced in relation to the pelvic vessels. The arc light may be employed either with or without the blue glass screen. When properly applied by the aid of a powerful light (20 to 60 amperes) and a concentrating reflector, solar erythema, the result of the special activity of the actinic rays may be produced with any desired degree of intensity.

The continuous application of both the incandescent and the arc lights produces more or less permanent hyperemia of the skin. The incandescent light produces the mottled appearance. The arc light produces a dark brown tint. The skin is tanned. The deeper structures of the skin are influenced, being stimulated to a high degree of activity, and increased vascularity.

I have not yet by any means exhausted my subject, though my paper has already reached a greater length than I intended. I will say in closing, that I trust the day is not far in the future when gynecologists will depend less upon the temporizing and palliative measures which constitute the larger part of our present gynecological practice, but will recognize that the most important thing to be done for a woman suffering from chronic pelvic ailments in a large proportion of all cases which come under observation, is to make her a well woman in general, relying largely upon the *vis medicatrix naturae* to correct local deviations from the normal condition. "Nature creates and maintains, therefore she must be able to heal."

REMOVAL OF VERMIFORM APPENDIX AND TREATMENT OF STUMP.

ANGUS McLEAN,
Detroit.

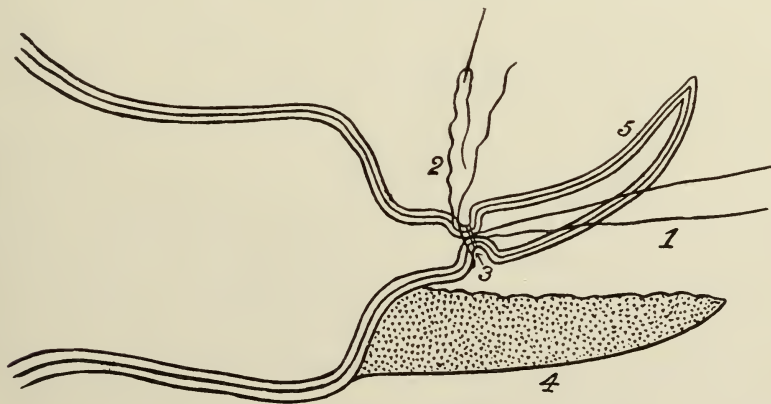
It is now only 20 years since the first operation for the removal of the appendix was performed, and only in the last decade has appendicitis become generally recognized as a surgical disease and being amenable to operative treatment.

In this short time many methods of removal have been advocated by different writers, but as yet no definite procedure has been adopted by the majority of operators, as different methods apparently give good results. The principal methods of removal of the appendix and treatment of stump have been the following: ligaturing the appendix near base, cutting it off distal to ligature and draining; cutting it off and stitching the different coats of stump separate; inverting the whole ap-

nitric acid, carbolic acid or thermo-cautery and then stitching serous layer over this; cutting the base of the appendix out of the cæcum and closing the opening as an ordinary wound of intestine; application of thermo-cautery to base and sewing of stump before inverting, and the use of crushing forceps and cautery.

The objects to be maintained in the operation are: prevention of escape of contents of appendix; prevention of sepsis; prevention of leakage from stump after removal, and the covering of the raw surface with peritoneum.

I have adopted a very simple method which I have used in the past two years with very satisfactory results. The appendix is freed from its mesentery back

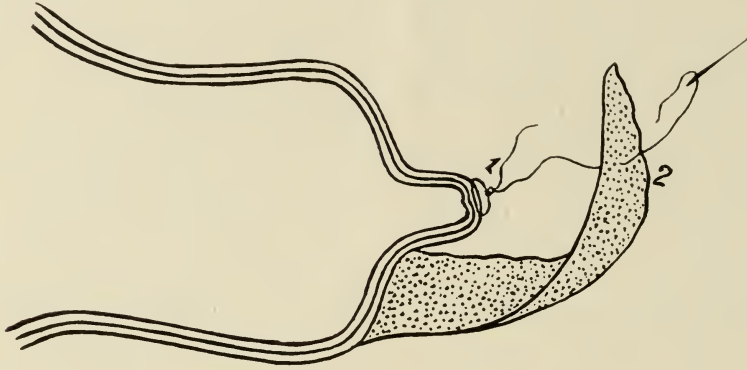


pendix into the cæcum and putting suture across base; removal of appendix near cæcum and inverting stump, using purse string suture; making a circular incision through serous coat and rolling it back like a cuff over the base; ligaturing the muscular and mucous coats, touching the mucosa exposed with

to near the base. A strong silk ligature is placed around the appendix at the desired point, including all the coats, and tied very tight. This constricts the appendix so as to form a prominent shoulder near the ligature. A purse string catgut suture is inserted through the serosa, well up on the shoulder (as shown in cut No. 1) and

drawn taut; the appendix is now removed with scissors just below the silk ligature, while the purse string suture is tightened. This brings the serous coat over the stump completely as the muscular and mucous coats roll in. The silk ligature comprises

I do not use acid or caustic of any kind on the stump, simply bring up the meso-appendix and cover it over. There are no stitches through or ligature around the muscular coat; I have noticed that the patients do not vomit so much or com-



the lumen so as to force all secretions from this point, frequently obliterating the mucosa, so that there is no danger of the escaping of secretion.

plain of pain to the extent they did when the muscular and mucous coats were ligated. I have followed this procedure in over seventy-five operations with the most satisfactory and gratifying results.

TRACHEOTOMY.*

J. A. HEASLEY,
Grand Rapids.

It is not the object of this paper to go into the technic of all the different features, of the different manners, in which the different kinds and methods of this operation are performed. But I will endeavor to give you a few points of interest bearing upon certain conditions.

Foreign bodies in the tracheal tract are invariably drawn in by suction. In a few

cases they enter direct, as in stabs and gunshot wounds. In some cases we have found portions of tissue lodged in the trachea as the result of rupture of an aneurism, or of an abscess. It is surprising, the different kinds of foreign material to be found in the trachea, lodged there by suction force.

Besides the different manners and positions in which these foreign substances are lodged, we find them lodged between the vocal cords, across the glottis, behind the epiglottis, in the ventricle, between the true and false bands, and in a great many

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cases they descend into the trachea or bronchus.

One very important feature of foreign body in the trachea is often overlooked, and that is a true diagnostic symptom. You must be able to diagnosticate between foreign body in the oesophagus and a foreign body in the trachea, without a mistake. Frequently patients have been brought to me after hours of intense suffering, who had been purged and vomited until they were completely prostrated in trying to expel a foreign body from the oesophagus that was not there, but in the trachea. The slightest subjective symptom should have pointed out the location of the foreign obstacle, and suggested that something must be done immediately.

The symptoms of foreign body in the trachea and a foreign body in the oesophagus, are so widely different, that such a serious mistake need not be made. Where we have such symptoms as cough, strangulation, cyanosis, immediate, other symptoms developing more remote, we may rest assured of what the trouble is. Should we have a foreign body in the oesophagus, should the obstacle be a bone, a pin, a needle, etc., we would have pain in the immediate vicinity of its lodgment, but no difficulty with the functions of respiration. Should the foreign substance be a bolus of soft food, the oesophagus would be completely shut off, and by pressure on the trachea might cause some trouble with the functions of respiration.

To be sure of your diagnosis if the lodgment is high up, say above the interclavicular notch, just press firmly on the trachea with the front fingers. If the pressure that has interfered with respiration be a soft substance in the oesophagus, it will become flattened, and as you remove your hand from the trachea the

functions of respiration are resumed. Should the bolus be far down in the oesophagus, its pressure would not interfere with respiration, but there would be intense pain in the immediate location of the foreign substance.

Inspection, palpation and auscultation may aid you very materially in your diagnosis. Should the foreign body be deep in the bronchus, diminution or absence of the normal vesicular murmur over one entire lung would indicate partial or complete obstruction of one of the primary bronchi by some foreign body. Should this interference be limited to a portion of the lung only, then you would know the foreign body had descended into one of the subdivisions. Again, on the other hand, the opposite lung will be observed doing more work than its companion. Should the foreign body be small and hard, as a nut shell, pin, etc., you would have a sibilant or hissing sound heard very plainly over the point of lodgment. The foreign body may be movable, and cause a very loud, hissing sound in the region of the lodgment. Should the foreign body be lodged high up in the trachea, it can easily be located by passing the finger over the trachea externally. As soon as you reach the location of the foreign body with your finger pressing on the trachea, your patient suffers very acute symptoms. Remove your finger, and these spasmodic symptoms are soon gone.

Now that we have made a correct diagnosis, we will proceed to operate. Should the obstruction be high in the trachea, so as to require either the high or medium operation, it would be very simple, but should it require the low or extremely low operation, we would find ourselves confronted with a more serious proposition.

I will not consume your valuable time by going into details on the different

forms of this operation, as it would be, to a certain extent, repetition of book knowledge. The low, and more especially, the extremely low, operation deserves our most careful consideration. It does this from several standpoints. Not infrequently we are confronted with a case where a foreign body is lodged at the bifurcation or descended in one of the bronchi. Nothing is left for us to do but to operate.

Any physician who can cut and ligate blood vessels, can do either of the first two mentioned; but every physician cannot do the last two successfully—not even the author of this paper—but having done a number of the low operations, and some of the extremely low operations, with a reasonable amount of success, I will give you the following method by which I operated:

Before making an incision be sure the patient lies square on the back, the head extended straight with the body, and a little lower than the level of the body, so as to make the trachea and muscles of the neck more prominent. By so doing you are more forcibly reminded of your landmarks. We should use the precaution to make our first incision in the median line and exactly straight with the body, for a perfect and careful beginning might make this operation much easier than a rude beginning. We will begin our incision at the cricoid cartilage, and extend it downward to the inter-clavicular notch separating the sterno-thyroid muscle in the median line, carrying your dissection carefully down to the trachea, being careful to avoid the isthmus of the thyroid body and a branch of the inferior thyroid vein which lies immediately in front of the trachea. In some subjects you will find the anterior jugular vein in front of the trachea. Should that be the case in

your subject, be sure to doubly ligate it before dividing it. Now that you are down on the tube see to it that all hemorrhage has ceased. Make it a rule NEVER to open a trachea as long as the slightest hemorrhage exists. Better allow the sin committed against nature by an innocent person, to bear away that breathless and lifeless body, than have the stain of an unligated hemorrhage resting forever on your conscience-stricken memory.

The tube being now exposed, place your finger directly against it, moving it upward or downward, as the case may require, until you have the foreign body under your finger. Using the finger as a guide, push the knife down to the trachea, bifurcation of the trachea, or wherever the lodgment may be. Make an incision sufficiently large to remove the obstruction, which can usually be done by any common forceps at hand. The patient being relieved of his suffering, now breathes as calmly as if nothing had ever happened.

Allow the relieved patient several minutes' rest before proceeding to repair your incision. In stitching up the trachea, I make an effort not to puncture the walls of that organ, lest your ligature might act as a foreign body on the inner surface of the tube. Stitch the muscular tissues from right to left over the trachea, which will bring the divided tracheal surfaces in correct apposition. Another precaution well to be observed is, be careful not to include a branch of the pneumogastric in your suture, as it might cause you serious annoyance later.

Cast not thine eyes to yonder mountain,

Whose plains are fertile and green—

For in its midst lies hidden

A monstrous enemy unseen—

Unseen to human eye,

Unknown to all but heaven,

It awaits thy early coming.

Be on thy guard, my brethren!

CANCER OF THE RECTUM.*

J. A. McMILLAN,
Detroit.

As an introduction to a short paper on this subject, I wish to emphasize three points:

First—That Cancer of the Rectum is a comparatively frequent disease. I call attention to this matter of frequency, because the medical profession do not seem to realize this fact, that rectal cancer is as common as cancer of the stomach and *five times* as common as cancer of all the rest of the intestines.

Second—The second point is that the diagnosis of malignant disease of the rectum, even in its incipency, is not difficult, for the entire rectum may be inspected and a large portion of it palpated.

Third—The third point is that a large majority of rectal cancers permit of total extirpation and that without subjecting the patient to any very formidable operation.

It seems to me that a consideration of these facts cannot but increase our sense of responsibility to these patients.

I am convinced that with the improved methods of rectal examination and operation, we can do much more for their relief.

The important essential is "early diagnosis." We seem to forget, when we consider cancer of the rectum that in every case there was a time when only a very small portion of the mucous membrane was involved; a time when in size, mo-

bility and extension, it was comparable to a hemorrhoid. This was the time of choice for operation, but, to our discredit, we must confess that it is rarely that we see a rectal cancer before it has involved all of the coats of the bowel and extended to the surrounding tissues; thus, it is, that cancer of the rectum when recognized is a terrible disease. Nothing but the most formidable operation can offer any hope of relief and the results from radical operation are such that a sentiment prevails against any interference.

How can these lamentable conditions of affairs be improved? The answer is "early diagnosis and radical operation." Now, unlike cancer of the stomach and cancer of many other internal organs, cancer of the rectum may be recognized early and easily. Then again, when a rectal cancer is small, it may be excised by a minor operation, devoid of danger, and without injury to any important structures. Accordingly, I regard early diagnosis of malignant rectal diseases particularly important.

In order that cancer of the rectum may be recognized at a stage when the medical profession can be of some assistance and can promise years of relief and a proportion of cures, there must be more frequent rectal examinations. If we were as familiar with the proctoscope as we are with the nasal or vaginal speculum, early diagnosis of rectal cancer would be the rule.

Physicians do not make rectal examinations as frequently as they should. This is due in part, to a certain amount of reti-

*Read before the Section on Surgery, Ophthalmology and Otology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 26, 1904, and approved for publication by the committee on publication of the council.

cence on the part of both patient and physician, but I am convinced that the real reason is that a false belief prevails among general practitioners that the rectum is generally immune from disease, that with the exception of hemorrhoids, disease rarely attacks the lower eight inches of lower bowel. Fissure and fistula are not common and cancer is not often seen. When the physician considers that these constitute a complete category of rectal diseases, it is not surprising that examinations of this organ should be infrequent.

Now, the point I wish to make here, the consideration of which would lead to a greater frequency of rectal examination and to earlier diagnosis is, that disease in the rectum *is common*. In this connection, I wish to draw attention to the frequency of chronic congestion and irritation, not only because I believe due appreciation of the part it plays in producing symptoms which often receive a mistaken interpretation, but also because it is quite possible that it has an etiologic relation to rectal cancer. The chief symptom of this condition of the rectum is constipation. I believe the dilated blood vessels, increased redness and mucus found in these cases often are misinterpreted as due to chronic inflammation. It has been demonstrated that a large percentage of cases of chronic constipation depend upon pathological conditions in the rectum, such as chronic inflammation, congestion, diseased rectal valves, etc.

Within the last month, I had a case that illustrates the point I want to make:

A woman, 60 years of age, consulted me for the relief of constipation, which she considered to be the cause of her excessive nervousness. She said that she had suffered occasionally for several

years with piles, ~~but that they~~ were never very troublesome and a little ointment given her by a physician gave relief during the attack. Upon examination, I found several small hemorrhoids at the muco-cutaneous junction. In one of these hemorrhoids I found a cancerous growth. Now, I had no thought of finding a cancer when I undertook this examination. The examination was for the purpose of discovering, if possible, the cause of constipation. The valvular portion of the rectum was congested, the superficial veins swollen and some mucus present. This is the condition commonly found to be present in cases of chronic constipation. Now, this condition responds readily to treatment and there is prompt relief of constipation.

I argue that in every case of chronic constipation, a thorough rectal examination is obligatory. In 100 cases of chronic constipation that consulted me, I found one case of incipient malignant disease, one case of rectal polypus, and one small suspicious growth upon the lowest rectal valve, which I removed. This patient was operated upon at Harper Hospital, May 26, 1902, for very stubborn obstipation. A small growth, the size of a small bean, was found on the margin of the valve. It was red and bled easily. It was removed at the time of the valvotomy and microscopic examination did not reveal any cancerous tissue.

I urge these considerations, the frequency of congestion and irritation in the upper rectum, the dependence of constipation on these conditions and the prompt relief afforded by treatment, in order that more frequent rectal examinations be made, and that incidentally, incipient, malignant disease may be discovered.

There is another bearing that chronic irritation in the rectum may have upon rectal cancers. It is now conceded by many authorities that chronic irritation is an important etiologic factor in producing malignant disease. Accordingly, in these cases, we not only are able to treat effectually the constipation, but, at the same time, we have a right to believe that by the removal of these chronic irritations, we are employing the best known methods of prevention of rectal malignancy.

By means of modern methods of rectal examination, every portion of the rectal mucous membrane may be inspected and portions of suspected growth removed.

MICROSCOPIC EXAMINATION.

What I wish to emphasize, in this connection, is the facility of doing these two important things. A proctoscopic examination is not painful unless there is abnormal sensitiveness about the anus and when the proctoscope is inserted, every portion of the rectum may be examined except the anal canal. This important region cannot be examined by the ordinary proctoscope or anoscope, because, when these instruments are withdrawn sufficiently to bring the lower portion of the mucous membrane into the field of observation, the sphincters contract vigorously and force the instrument out. To obtain a better view of the anal mucous membrane, I have had a fenestrated anoscope made. This is used in the same way as the ordinary anoscope; its use is not painful and it affords a good view of the anal mucous membrane. By means of this instrument, portions of tissue for microscopic examination may be easily obtained. Digital examination is of the greatest importance, in the recognition of the nature of rectal diseases.

In regard to the treatment of rectal cancer, I wish to state what cannot be said of malignant growths in any other portion of the gastro-intestinal canal, viz: in its early stages, it may be completely excised without a major operation.

In the case mentioned above, where the cancerous growth developed upon a small hemorrhoid, the operation consisted of "excision" rather wider, but not more dangerous or difficult than that for an ordinary hemorrhoid, and the operation completed by drawing the mucous membrane together with fine catgut, no dressing was left in the anal canal but a firm pad was applied externally. Growths in the upper portion of the rectum may be excised through a proctoscope.

In May, 1902, a woman, age 55, consulted me for the relief of a very stubborn constipation. Upon rectal examination, I discovered a small, wart-like growth upon the margin of one of the rectal valves. I operated at Harper Hospital May 26, 1902. By means of a long shepherd's crook needle, I passed a ligature on either side of the growth, leaving plenty of room for wide excision and with a long scissors removed it. I consider these scissors, the invention of Dr. Hirschman, to be superior to any other cutting instrument for operations on the mucous membrane in the upper part of the rectum. The operation was completed by securing the ligatures already passed by shot, which controlled hemorrhages and made good coaptation of mucous membrane. Microscopic examination did not reveal any cancerous cells in this case, but this should not affect the operative technique. In such cases, you obtain tissue for examination and do a sufficiently radical operation at the same time.

I believe that it is advisable to remove all such rectal growths. It may be found that they are benign, but it is consistent with modern views of cancer, to regard with suspicion even benign growths, especially when located in a region subject to persistent irritation. This case emphasizes and illustrates what I tried to emphasize in connection with the first case reported—"That the growth was discovered incidentally while making a rectal examination for the cause of constipation."

A question arises here as to the rapidity of growth in rectal cancers in the early stages. That growth in the earliest stages, is not very rapid, I believe is a fact in most cases and then I believe we are justified on stating, that in the very great majority of cases chronic irritation and inflammation exist for a length of time before the development of the cancer, and these give sufficient local or general disturbance to demand from a careful physician a rectal examination.

A third case was Mr. H. H., Brown City, Mich., referred to me through the courtesy of Dr. Campbell. The patient, age 65, was greatly reduced in flesh and for over two years had suffered from some rectal disease, which he had concluded was hemorrhoids. In this case, the entire circumference of the lower two inches of the gut was cancerous but only one small patch of the peri-rectal tissue was involved. The operation, performed at Harper Hospital, January 4th, 1904, was very much like a "Whitehead" operation, care being taken to remove as much as possible of the tissue around the rectum. Microscopic examination demonstrated this to be squamous-celled cancer, which accounts for its slow growth and for its limitation to the mucous membrane. In this case, the sphincters were retained. The mucous membrane was brought down and sutured to the skin. The patient's bowels moved on the eighth day and he was able to walk about at the end of the second week, and at this time defecation was painless.

A CASE OF COLITIS WITH TREATMENT.*

F. HOLMES BROWN,
Newaygo.

The subject of colitis is not treated at any length in the ordinary text-books on medicine and I find after careful reading that it is not frequently encountered by the ordinary practitioner. That is the reason that prompts me to report the following, not with the idea of reporting a

cure or bringing forth any new plan of treatment, but with the hopes of obtaining new light myself on the subject and getting a free discussion. Now, with no further introduction I will report the case.

J. C., female, Irish American, 34 years of age. Has been married 19 years. Mother of seven children; 1894 first noticed pain and discomfort along course of transverse and descending colon and never since that time has she been free from dis-

*Read before the Section on General Medicine at the Annual meeting of the Michigan State Medical Society at Grand Rapids, May 27, 1904, and approved for publication by committee on publication of the council.

comfort there. Patient has always been of a constipated habit. From the date of first attack she has been passing mucus casts similar to photograph exhibited. These were small at first, mere shreds in fact as patient describes them "little white specks in stool." These kept on increasing in size until about March 1st last. Casts were passed fully ten

occur. At times she has been confined to her bed for weeks.

On November 1st, 1903, she became worse, and was confined to bed until March 15th, when she began to improve quite decidedly. November 19th had severe continuous pain and passed about two quarts of a dark brown fluid which proved to be a mixture of pus and broken



inches long and varying in size from a lead pencil to my index finger. The photographs exhibited were taken from some, taken shortly after this, but were broken up pieces; five years ago operated on for uterine disease, nature of operation not known.

Her condition has from the beginning at times improved and then relapses would

down blood. Also on 20th passed a small amount; evidence at this time of a localized peritonitis as well. Temperature 102°, pulse 90, respiration 25. Peritonitis limited to left half of abdomen.

This condition lasted three weeks and gradually disappeared.

Condition of patient March 1st, on assuming charge of case, severe pain and

marked tenderness over line of transverse and descending colon. On palpation no tenderness over liver, spleen, bladder or kidneys. No rectal trouble beyond a couple of small internal hemorrhoids, subacute cystitis, a severe endometritis, severe frontal headache, foul breath and evidence of catarrhal gastritis. Inability to move bowels without copious enemata of hot water which would be followed by hard fecal masses coated with mucus and large numbers of mucus casts. Gave patient 5 grains' salol every three hours. Tablespoonful doses of olive oil after meals, $\frac{1}{4}$ grain protoiodide of mercury every three hours, and morphine sufficient to quiet pain, $\frac{1}{4}$ grain twice daily; patient soon began to improve under treatment and left her bed on the fifteenth with casts less in number, pain very slight and not constant, and general condition improved. Only small mucus shreds passed at this

time and these were few, pain entirely disappeared, but tenderness remained at junction of transverse and descending colon. March 21st gave full dose magnesia sulphate, causing several large loose stools, and since that time up to present she has had natural stools with only an occasional dose of the salt. Appetite has increased, gastritis and cystitis have disappeared under the ordinary treatment. Endometritis has somewhat improved, but is not yet well; patient still has some pain and passes few casts now and then. Examination of casts under microscope show few cells from lining membrane of intestine but the main mass is nothing but pure mucus. In drying they practically disappear, leaving only a very small residue.

I trust that all who have encountered a similar case will give me the benefit of their experience.

CLINICAL CASES.*

J. G. LYNDS,
Ann Arbor.

I have four rather unusual and interesting cases which I wish to report today under this heading.

First—A Fibroid Tumor with absence of uterus and vagina, and only one rudimentary ovary of all the internal organs present.

HISTORY: Mrs. A., age 45 years, married 19 years, never pregnant, has never

menstruated or had any periodical disturbance that could be referred to the pelvic organs. Was in good health up to three years ago when she noticed an enlargement in the lower part of the abdomen immediately above the pubes. Since that time it has been steadily increasing in size, and now extends above the umbilicus. Appetite and digestion fair, bowels costive. Has been getting nervous for the past two years and is now very much so. Has some distress from pressure and some soreness, but no severe pain.

*Read before the section on Obstetrics and Gynecology at the Annual meeting of the Michigan State Medical Society at Grand Rapids, May 26, 1904, and approved for publication by the committee on publication of the council.

EXAMINATION: General appearance good—nothing to attract attention or unusual—chest negative. Abdomen enlarged, hard, and nodular over its lower portion, enlargement extending two inches above the umbilicus and down into the pelvis.

External organs—Labia major and minor, clitoris, meatus and vestibule perfect—no os, vagina, nor any indications of vagina by rectal and bimanual examination. Growth filling the pelvis so it was impossible to get any idea of the presence, absence or condition of the internal organs. A diagnosis of a rapidly growing fibroid was made and an operation offered for its removal and the formation of a vagina. The offer for the removal of the tumor was accepted, but that for the formation of a vagina was rejected. A few days later I opened the abdomen and found the expected fibroid, but could find no trace of uterus, tubes or ovaries. The tumor was undergoing cystic and colloid degeneration and was attached to the bottom of the cavity where the uterus should have been. Ligation beneath it was comparatively easy, there being no broad ligament on either side so its removal was not difficult. Microscopically there was no sign of uterus, tubes or ovaries in the specimen or patient. Dr. Warthin in examining the specimen discovered what he believed to be one rudimentary ovary but no sign of tubes or uterus. The vagina was entirely absent also.

The patient made a rapid and uninterrupted recovery and returned home in three weeks feeling quite well.

This case is interesting because of the fact of her having married and lived a happy and contented life without any marked nervous or other disturbances, un-

til the tumor developed, without vagina, uterus or ovaries; the sexual relations having apparently been satisfactory as they were in ignorance of any abnormality until a short time previous to their consulting me, although married 19 years. The case is also interesting because of the fibroid growth occurring in the absence of the internal organs.

CASE No. 2.—A case of Pseudo-hermaphroditism. On December 1st, 1903, Miss C. consulted me and gave the following history:

Age, 26; single; school teacher; family history, good; father and mother well; has brothers who are well; was strong and well up to 11 years of age, at which time had chorea, after which development ceased for three or four years and from that time on was slow; has never menstruated but for the past year thinks she has had a periodical disturbance occurring every three or four weeks, consisting of backache, feeling of fullness in the pelvis, headache and other indefinite nervous symptoms; says she has a growth on the external parts which she wishes removed.

EXAMINATION: Patient 5 ft. 3 in. in height; weighs 112 pounds, rather masculine in appearance and walk; has coarse black hair, quite abundant; some coarse black hair on face, evidently shaves, general outline of masculine type. Mammary glands and fat absent, areola and nipple small of decidedly masculine type, considerable hair on abdomen and thighs. The external organs were absent with the exception of the meatus urinarius and an enormous clitoris, measuring two and a half inches in length and two inches in circumference, the glands and prepuce of which resembled the penis to a marked degree. The meatus was two-thirds of an inch back of the base of the clitoris and

rather hard to find. There was no trace of labiā or os vaginæ. The urethra was four inches in length. The nurse said that in catheterizing her she once passed the instrument in six inches and got no urine, but on withdrawing it and passing it in again got the urine at the ordinary depth. This has suggested to me the possibility of a rudimentary vagina opening into the urethra, but I failed to find it if present at the time of operation.

Under anesthesia I found by bimanual examination, the broad ligament, over which I could hook my finger and in the center of which was a nodule about $\frac{1}{4}$ the size of a virgin uterus. On the left side on the posterior fold was a small nodule which I took to be a rudimentary ovary, but could not discover a corresponding one on the right side. There was, however, a small nodule in the region of the inguinal canal, an enlargement which might have been a small ovary, testicle or an enlarged lymphatic.

After making the examination, I explained the condition to the patient and her mother and advised that nothing be done as no operation could make her as she desired to be. They both insisted on having the enlarged clitoris removed and a vagina made. I explained the probable failure of any attempt to make and keep open a vagina under the existing conditions, but they still insisted on the attempt being made, and insisted so hard that I finally consented to make the experiment, and on December 4th, operated. I first removed the clitoris by stripping off what skin and mucous membrane I could, to be used in lining the vagina, cutting it off, ligating the vessels and covering the stump over with the surrounding skin. Then I made an incision in the

median line immediately posterior of the urethra being guided by a sound in the bladder and a finger in the rectum; I dry dissected a finger's length or until I thought the canal as near the peritoneum as it was safe to go. This I dilated until three fingers could be introduced, brought in the flaps removed from clitoris and the surrounding skin, stitched them to the top of the canal and packed it tightly with iodoform gauze. Four days later I removed the gauze and substituted a glass plug four inches long and one inch in diameter, which passed in very readily. I kept her in bed three weeks and kept the plug well in place, at the end of which time the canal remained well open and the skin flaps were well united, but changed to more nearly resemble mucus membrane. When she had been up a couple of days I accidentally heard she was contemplating marriage in the near future, and I plainly told her what the probable result would be should she carry out such intentions. She left the next day without my knowledge and went home. A few weeks later I saw a newspaper containing the announcement of her wedding. Again a few weeks ago I heard through a party who lives near them that she and her husband seemed to all outward appearance to be living together happy and contented. What the future outcome may be, time alone can tell.

In the December number of the American Journal of Obstetrics, which came out about two weeks after I operated on this case, there is an article by J. Riddle Goffe describing a very similar operation. In his case the external organs and a rudimentary vagina were present, however, while the condition of the internal organs is not stated.

VAGINISMUS: Mrs. K., age 26 years; married three months; puberty at 11; periods normal in amount without pain, and regular; should have had one two weeks ago which has not appeared. The first time she has ever gone over time. For past ten days has had nausea and eructations of bitter material. Says she had a similar condition three months ago which lasted two or three weeks. Has always been very nervous: Says that sexual intercourse has been impossible for some reason; that such attempts are very painful and make her very nervous. That she has no sexual desire since being married, although she did have before. She was in an extremely excited and nervous condition and declared she would be divorced or commit suicide. In order to quiet her and give her confidence I assured her she could be cured and induced her to have an examination. The extent of this, however, was to separate the labia and inspect the vestibule, hymen and os vaginæ which was very small, the hymen very tense and unruptured. Any digital or instrumental examination was impossible, and the slightest touch of the parts would cause spasms of the whole body. It was difficult to keep her on the table to make the little examination I made, and she made so much disturbance, she frightened some who were in the waiting room so they went away and even attracted the attention of those passing on the street.

I advised her that her condition could be relieved by an operation and treatment, but as there was a possibility of pregnancy she had better wait, for if this proved true she would probably be all right after her confinement. She declared she did not want children, that if

pregnant she would suicide, that she would not remain with her husband anyway.

She proved to be pregnant, and several times came to my office and tried to induce me to operate for the condition of the hymen and to empty the uterus, both of which I refused to do.

Whether or not she went to others, as she said she would, I do not know; but if so she had nothing done for she went to term, was delivered instrumentally with little trouble, made a good recovery, and was entirely relieved of her trouble; even the sexual appetite returning. When the first child was fifteen months old I delivered her of a second. The most interesting points in this case are the extreme nervous condition produced in the patient; the undoubted occurrence of pregnancy without intromission and the complete recovery after pregnancy and labor.

CASE No. 4.—Mrs. S., age 24; married one year; has always been well but rather nervous; had never had occasion to consult a physician before. Puberty at 14; periods sometimes slightly painful, but nothing of account, and sometimes irregular.

She consulted me in September, 1903, on account of an enlargement of the abdomen. She gave a history of absent periods for four or five months and gradual enlargement.

I examined the abdomen and found an enlargement filling the lower part of the abdomen, reaching above the umbilicus; made out the foetal heart and diagnosed pregnancy about five months advanced. She was so extremely nervous I did not attempt a vaginal examination.

Her husband questioned my diagnosis because as he said they never had

been able to have intercourse. The diagnosis was correct, however, and things progressed fairly well to time of confinement, which occurred on December 3rd, four months after my first examination. I was called early, and without making any examination directed the nurse to make the usual preparation, went away, returning a couple of hours later when she informed me she had been unable to do more than give her a bath, as any attempt to clean the vulva caused a convulsion. I attempted it myself, but had no better success than the nurse, the slightest touch to the parts causing a spasm of the whole body. I then administered chloroform while the nurse prepared the parts, after which I made an examination. I found the vulva normal, the hymen relaxed; the os vagina patulous so three fingers could be introduced. The husband told me he had been able to introduce two fingers himself, although intromission had never been possible. There certainly was no anatomical obstruction present. The cervix being well dilated I applied forceps and delivered, there being some laceration of the perineum. This I did not repair more than to stitch together the skin and mucous membrane purposely leaving the muscles separated with the hope that the hypersensitive and spasmodic condition would more surely be relieved.

Convalescence was normal, but all through it the nurse had great difficulty in cleansing the parts. Six months later the husband came to me and told me that things were no better than before, and at my request brought her for examination. This I made with great difficulty, the patient shaking and trembling so I was almost impossible to control her; almost

jumping off the table when the vulva was touched. I finally ascertained that the vagina was well open, admitting two fingers without trouble, and that the other organs were in good condition, with the exception of a slight laceration of the cervix. I continued local treatment until I could introduce a large bivalve speculum without trouble and with practically no pain nor spasm of the parts, but when any attempt at intercourse is made the spasmodic condition returns and it results in failure.

I have had her change climate, separating her from her husband for months; have given her tonics and nerve sedatives, used cocain locally, morphine generally and done everything I thought likely to benefit the condition, but all alike have resulted in failure.

The woman is absolutely without sexual desire, in fact dislikes and dreads the attempt; says it is impossible for her to prevent the general contraction of the muscles which takes place, or the involuntary drawing away.

I believe her husband is not without fault in this case, however, for he admits an inability to satisfactory erections and to premature ejaculations.

I have treated many cases for conditions similar to those present in this patient, but this is the only one I have failed to relieve, which I may yet be able to do, however, for she has improved in many ways during the past year.

The case is of interest because so obstinate; because of the probable occurrence of pregnancy without intromission and because of the absence of any improvement of the conditions after pregnancy and confinement or by treatment.

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Editorial

THE NOMINATION OF A PHYSICIAN FOR UNIVERSITY REGENT.

On Feb. 14th, the Republican Convention, on first roll call, nominated Dr. W. H. Sawyer, of Hillsdale, as its candidate for Regent of Michigan University. His opponent was Mr. Chas. Lawton, of Lawton. The vote was 683 to 305—Washtenaw not voting, though its representative moved the vote be made unanimous.

The political party balance in Michigan makes republican nomination equivalent to election. But the case is made even stronger by Dr. Sawyer's popularity over a large portion of the State. All recognize his personal fitness for the peculiar duties of a University Regent. Then the place sought him rather than he the place—another item in his favor. His friends believe that he better than another at the present time is fitted to serve all the people in the place of Regent.

It is recognized that the broadest view should be taken in the conduct of the University; such view is impossible that overlooks the physician. His scholastic training and professional life give him a deeper insight into the best ways of growing good citizens with a minimum of waste. He will help his colleagues on the Board of Regents to see with his eyes many important things otherwise passed

by, just as they will help him with their peculiar education and active life.

In the past the application of the doctor's peculiar technical training has been limited to his immediate neighborhood; now the time has arrived for him to aid in solving larger questions of State—Dr. Sawyer's nomination shows that Michigan recognizes the situation.

Since the medical profession supported his nomination, it will give closer attention to University management—to the advantage of all concerned. Because the profession is behind him, Dr. Sawyer will be stimulated to merit its approval.

The above vote shows that practically all the people are with the movement, thus endorsing its fitness, and giving promise of support of its selected representative.

This mass of people desire first and all the time such conduct of the University, as will ensure the graduation of none unable to earn an honest living by supplying some of the multiform needs of society. No parent wants his child a "wall flower" in the activities of life. That Dr. Sawyer will materially assist in the realization of this object is well known.

The organization which made possible the present medical law, and nominated Dr. Sawyer for Regent, must commend itself to its friends and gain the respect of the indifferent. It has still other duties to perform, as the elimination of the University's influence in promoting "pauperism" and the "spirit of graft" among the people by offering free professional service to the "well-to-do" at the University hospitals. (See editorial February *Journal Michigan State Medical Society*.) But an awakened profession, people and Board of Regents, will find a practical method to solve the problem wisely.

We need to remember the sharp distinction between our work with other citizens, and that entirely our own. Thus, as citizens, we join with other citizens in selecting and regulating boards of health; in helping to draft laws regulating the practice of medicine; in managing state institutions as the University, etc. In this capacity we helped to nominate Dr. Sawyer as Regent.

As doctors we have a State Society with branches in every county; to develop these to the utmost is our especial work. Its perfection will determine our influence in measures affecting all the people.

To maintain our present position, with constant improvement thereof, it is necessary for members of each branch to pay dues promptly in advance; to contribute something to every meeting of said branch; to seek out the indifferent or antagonistic and bring them into a branch; to close the lips to unfriendly public criticism of any brother doctor, reserving this for a private interview; to always speak well of fellows in public.

The Michigan State Medical Society is strong as its members meet these obligations.

TO THE PROFESSION IN MICHIGAN.

Doctors are the only class of business men doing business on a basis of almost universal and always indefinite credit. The lawyer either collects his fee in advance or withholds it from moneys passing through his hands. The merchant gives even short term credit only to those who are financially responsible, and therefore collectible. The very nature of a physician's work precludes a definite financial understanding except in opera-

tive cases because he cannot anticipate the amount of service necessary in any given case or predict with certainty its outcome, hence he is accustomed to extend credit to all except those who have previously imposed upon his kindness and casts freely "Bread upon the waters" in the shape of his time, knowledge, experience and skill.

Ingratitude is one of the vices of the present age and the doctor receives more of it than any one else, simply because no other business man puts himself so freely in the way of receiving it. The turkey eaten last Christmas, the last year's hat and the illness of the year before are no longer esteemed or appreciated, but the turkey and the hat are paid for while the doctor who was a fool to wait so long anyhow still insists that he ought to be paid.

Then the ungrateful patient reasons that if he was sick the doctor made him sick or kept him sick, in fact, he has never been really well since, hence the doctor owes him instead of vice versa. From this mental process evolves a threat of suit for malpractice unless the doctor cancels his charge and donates his services. It is a notorious fact that nearly all of the many threats of action for malpractice arise in precisely this way through dissatisfaction, real or imagined, with services rendered a considerable time before and unappreciated because not paid for. The ungrateful patient finds a ready excuse for dissatisfaction in the impaired health following serious illness, the lack of perfect function incident to a fractured joint, or the unexpected tardy convalescence following operation, all factors utterly beyond the control of the physician who has displayed at least the average amount of knowledge and skill

which is all the law asks or expects him to do. Actual malpractice comes promptly to suit but these bluff combinations of the ungrateful patient and a shyster lawyer organized for revenue only, hold the threatening club over the medical profession for the whole three years which the law of this state allows.

Our committee on legislation have a bill pending in the present Legislature which limits the time during which suit for malpractice must be begun to one year, a law which exists already in some six sister states. The Society at its last meeting instructed this committee to introduce and work for such a bill and it is demanded and expected that every doctor in the state will do his utmost to aid its passage by bringing all possible influence to bear upon his own member of the House or Senate. The bill will have the opposition of a certain class of lawyers and possibly of some rural constituencies or labor interests and the cry of class legislation will undoubtedly be raised against it.

On the other hand every country but ours exacts an indemnity bond as a requisite to a suit for malpractice and the doctor in Michigan who of all its citizens is alone subjected to this annoying menace is entitled to ask from the state such legislation as will protect him against blackmail and threat while in no way restricting the right to redress of the individual who has a legitimate claim for damages.

One year gives ample time for the person really injured to bring suit, gives the doctor a fair chance of defence before his witnesses are scattered or dead and debars most of the blackmailing threats arising only from mercenary motives.

As before said, the most efficient influence in behalf of this needed measure can be exerted by the members of the county societies upon their own legislators. Steps are to be taken to bring this matter before each county society, but the individual member should not wait for such action. A pledge of support from your legislator whom you personally can influence will do more for the pending bill than the most beautiful resolutions passed by your society. Do not delay but get busy!

BACILLI OF THE DYSENTERY GROUP.

In many countries scattered widely over the world, certain more or less closely allied bacteria, not known to be normal inhabitants of any part of the gastro-intestinal tract, have been isolated from the dejecta of persons exhibiting dysenteric and diarrheic symptoms, and from the mesenteric contents, mucosa, and mesenteric glands of those dying of these diseases. Although the intestinal discharges from patients suffering from other diseases, and those of normal persons, have frequently been investigated, organisms, corresponding to these in type have not as yet been found.

These organisms can be separated into four groups by fermentation tests:

Group

I

"Shiga"

"Kruse"

"New Haven"

(Ferment dextrose.)

Group

II

"Y" (Hiss and Russell)

"Seal Harbor"

"Diamond"

"Ferra"

(Ferment dextrose and mannit.)

Group

III

"Strong"

(Ferments dextrose, mannit, saccharose.)

Group

IV.

"Harris"

"Gray"

"Baltimore"

"Wollstein"

(Ferment dextrose, mannit, maltose, saccharose dextrin.)

Bacillus

Typhosus

(Ferments dextrose, mannit, maltose and dextrin.)

Philip H. Hiss* has shown that bacilli insolated from cases of dysenteric and diarrheic diseases fall into the four groups shown above, that these groups can be separated from each other and from the typhoid organism not only by fermentation tests but also by their agglutinative characters.

**The Journal of Medical Research*, December, 1904.

THE X-RAY AS A STERILIZER OF MEN.

Dr. F. Tilden Brown (*Medical News*), says: "In the last few days ten individuals who have devoted more or less time to X-ray work during the past few years—none of whom have any venereal disease or traumatism involving the genital tract—have been found the subjects of absolute azoospermia. None of the number are conscious of any change or deterioration in regard to their potency."

This statement is supported by reports of other cases—as a patient known to

have active spermatozoa before treatment by X-rays for puritus ani, did not have them after the treatment nor did they reappear till many months thereafter.

Farther attention is directed to the effects of the X-ray on lower organisms. Thus Albers-Schonberg has produced aspermia in rabbits by exposing the abdomen to the X-rays.

Halberstaedter has found changes in the ovaries of rabbits, essentially the disappearance of the Graafian follicles at the end of fifteen days.

There seems reason to accept Dr. Brown's statements as essentially correct. If so, additional caution in the use of the X-rays will be indicated.

The sociological bearing of these observations are obvious. It is pertinent to inquire about the sterility of the many X-ray operators. Possibly they may have been rendered sterile and are unaware of their changed condition—so preventing a legitimate increase in their families.

If finally found correct, it will take the place of spaying—and probably be less expensive.

As a prevention of conception it will be ahead of the old methods, and can be operated on the male rather than the female.

Seriously, it makes evident that the properties of the X-ray for evil are not fully understood, and so emphasizes that X-ray operators were wise to proceed cautiously into the realms of the unknown. Else suits for damages may spring for the harm they have unwittingly done on some hapless person, and scientific medicine suffer harm at the hands of its friends.

COPIOUS WATER DRINKING IN TYPHOID FEVER.

The free use of water internally is accepted generally as important in the treatment of typhoid fever. During the last year and a half, Edward F. Cushing* has conducted some interesting experiments in a number of typhoid fever cases at the Lakeside Hospital, Cleveland. He had given large amounts of water to his patients at frequent intervals. It was found that most of these patients could take four ounces of water every fifteen minutes during waking hours, amounting to from eight to fourteen pints in twenty-four hours. In addition the ordinary patient received every two hours during the day and once or twice at night, alternately six ounces of milk and six ounces of albumen-water. These large quantities of water were well borne. The amount of urine passed in the twenty-four hours after admission was found to be about twenty ounces. After forty-eight hours, or by the end of the third day, there resulted a daily elimination of from eight to twelve pints. In some cases there were two gallons or more of urine. The polyuria was readily kept near this level in uncomplicated cases during the febrile part of the illness.

By this treatment, it was found that fever baths had to be given and that the general comfort of the patients seem apparent. Headaches were not so troublesome; tongues and mouths were noticeably clean and moist; apathy, deafness, restlessness, nocturnal delirium and the nervous and toxæmic symptoms seemed less; nausea was unusual, and remissions in temperature appeared more frequent.

**The American Journal of the Medical Sciences*, Feb., 1905.

The mortality was lower and the complications were fewer in those patients whose urinary elimination was above 160 ounces daily.

The following conclusions were reached:

1. Large quantities of water internally, a gallon or more in twenty-four hours may easily be taken by typhoid fever patients, if administered in small quantities at frequent and definite intervals.
2. A copious elimination of watery urine at once follows, the degree of polyuria, day by day, closely corresponding to the quantity of fluid ingested.
3. Patients are more comfortable by this mode of treatment and toxic and nervous symptoms are lessened.
4. The mortality, as well as the severity, of typhoid fever, seems to be still further diminished by this method of hydrotherapy employed as an accessory to the cool-bath treatment of the disease.

DOES THE MEDICAL PROFESSION NEED MORE MEDICAL SCHOOLS?

The College of Physicians and Surgeons of Los Angeles was incorporated Nov. 23d, 1903. About the same time was born the *Los Angeles Medical Journal*—a monthly with editors from the faculty of the above medical college. The journal and college thus have a common origin. Formerly this combination was common, but of late years it has been less fashionable. In the interests of the medical profession we wish this new birth had not taken place, but that rather the surplus capital and brains and energy had been added to the working power of medical colleges already existing in California. The medical colleges of this state are not

overburdened with either cash or students or teaching force. Every well-posted doctor knows that the undue multiplication of medical colleges and journals has operated against the interests of the great mass of the medical profession. If organization ever becomes a power the mass of the profession will forcefully ask that medical colleges and journals without the capital in any direction to make them able to train doctors in touch with modern medicine be not duplicated and their originals be closed. A patient profession has borne long with these enemies to its best evolution. Parasites of its life blood will be wiped off; those who seek to live by preying upon the profession will be invited to adopt measures to earn an honest living.

An organized medical profession can accomplish what individual reformers and "Elijahs crying in the wilderness" have failed to do. Let us have such a profession as can defend itself from all schemes and schemers against its honor, and capacity to command the respect of the laity. Better, not more medical colleges and journals is the need of the twentieth century. Better and fewer doctors is the need of the hour.

Ponder these things as you work for better organization.

County Society News.

GENESEE COUNTY.

The Genesee County Medical Society held its regular meeting in Flint, January 24, 1905. The bill for the establishment of a state sanatorium for the tuberculous was unanimously indorsed. C. S. Wheeler, of Flushing, was elected delegate and A. S. Wheelock, of Goodrich, alternate.

H. R. NILES, Sec'y.

INGHAM COUNTY.

The regular bi-monthly meeting of Ingham County Medical Society was held at Lansing January 12, 1905. H. A. Hays was elected delegate to the state meeting, J. F. Campbell alternate.

F. N. Turner, Webberville; S. H. Culon, Mason, and C. D. Bleck, Lansing, were appointed a committee to work with the special committee of the Michigan State Medical Society to secure an appropriation from the state legislature to establish a sanatorium for incipient tuberculosis.

The committee on service at the U. of M. Hospital were not ready to report. They were instructed to draft resolutions and forward to the university regents. The committee is L. D. Toles, O. H. Freeland, A. D. Hagedorn. The sentiment of the society is strongly against free medical and surgical services to those able to pay for same.

O. H. Freeland, of Mason, reported a case of elephantiasis of the penis with specimen.

Abstract:

The pathological specimen was removed from the under surface of the penis of a patient 19 years of age. There seems to be no doubt that it is of congenital origin. The growth being at birth the size of a small bean. The attending physician, thinking that in time it would disappear, did not attempt its removal. The tumor never caused any pain; but slowly increased in size, was soft and flaccid and not unlike the surrounding structures to which it was attached by a broad base.

Its removal was accomplished without pain under a local anaesthetic injected along the line of incision and around the cornea glandis. The operation being the ordinary one for circumcision, with the addition of extending an incision posteriorly in order to include all of the growth.

I was at first inclined to believe it a papillomatous growth; but after showing it to several authorities, I was convinced that it was a case of elephantiasis.

Text-books give very little space to growths of this variety and we may judge that they are of rare occurrence. Cases are reported as occurring in warmer countries, where they affect certain parts of the female sex, especially the labia majoria, and here the tumor reaches such a size as to extend down to the knees or ankles.

In some cases elephantiasis is supposed to be due to a parasite called *filaria sanguis*, introduced into the blood by means of the mosquito bite.

The patient from whom this tumor was removed has always lived in Michigan.

A microscopical examination will be made later and then I hope to report the same to this society.

L. W. Toles, of Lansing, read a paper on Fractures and Dislocations of the Wrist.

Abstract:

In introducing this subject for your discussion I will not enter into minute details or unusual complications, as time is limited and more particularly as under this head would be included that common and important injury known as Colles' fracture of the radius. This, from a clinical standpoint, is of such vast importance that I will but briefly allude to some of the less frequent conditions which would come under this heading. The injury next in importance to Colles' fracture is backward dislocation of the wrist joint, due to a fall upon the palm resulting in deformity which simulates that of fracture but in an exaggerated form. The important diagnostic difference is that in dislocation the normal relations of the styloid process of the radius and ulna are preserved, whereas in fracture this prominence in the radius is carried to a higher level than its fellow as shown by a comparison with the sound side. Forward dislocation is extremely rare, the symptoms are the reverse of those that indicate a backward displacement.

Dislocation at the lower radio-ulnar joint may be produced by forcible pronation or supination as in wringing clothes or by direct violence. Dislocation of this joint exists perhaps more often than is generally supposed as a complication to Colles' fracture of the radius.

The os magnum is the only carpal bone likely to be displaced and is usually the result of a crushing injury to bones and soft tissues. The treatment of the various dislocations of the wrist is usually simple and reduction is effected by applying force in a direction opposite to that which produced the dislocation, together with traction and firm pressure over the abnormally prominent surfaces in which position the parts are to be retained by a suitable dressing.

The powerful ligaments which form a part of the joints of the wrist usually resist more force than does the radius, hence instead of a dislocation we almost invariably have a fracture of the lower end of the radius. This condition known as Colles' fracture was first described by Dr. Colles, a Dublin surgeon of considerable note.

In point of frequency Colles' is classed as second, being exceeded in number only by fracture of the clavicle. It is usually the result of indirect violence, being produced by a fall upon the palm of the hand forcibly extending the wrist with consequent giving way of the bone at junction of the hard compact portion with the soft spongy articular end. The line of fracture is from $\frac{1}{4}$ to 1 inch from the articular surface and usually transverse. Sometimes the line may be oblique, including the whole diameter of the bone or may include but a portion of the articular surface, in which case the fracture is intra-articular and more prone to ankylosis.

The lower or distal fragment is usually driven back by the forcible extension and very often comminuted or impacted. This fact will account for the so frequent absence of crepitus.

It is not common to have a compound fracture in this region, excepting in crushing injuries to bones and soft parts.

The ulna has no direct relation with the wrist joint, consequently is scarcely ever broken, but, as has already been stated, the extreme extension and displacement very often results in a dislocation of radio-ulnar joint in conjunction with the fracture of the lower end of the radius. This point, I believe, is often lost sight of, and is the cause of bad results in many cases.

Another complication which may exist is the breaking off of the styloid process of the ulna and displacing of the fragment to such an extent as to make complete recovery impossible and occasionally calls for the subsequent removal of the detached portion of bone.

When the fall is upon the back of the hand, as is sometimes the case, the fragment will of course be displaced in an opposite direction.

The symptoms of Colles' fracture are usually characteristic and diagnosis easy, but a careful examination should be made in all doubtful cases. This is best accomplished sitting in front of and facing the patient who has *both* forearms bare and placed in an exactly symmetrical position.

If Colles' fracture is present the following points will be noticed:

The hand is bent toward the radial side so that a line drawn through the axis of the forearm passes through the fourth finger instead of through the second one as on the sound side. The styloid process of the radius will be more prominent than on the sound side, and by comparison with the styloid process of the ulna will be displaced upward toward the elbow.

By inspection from the side we note a projection on the palmar surface and depression on dorsal aspect of the wrist corresponding to the end of the radius, or, as it is sometimes described, a bayonet projection due to the backward displacement of the lower fragment. As we view the whole hand, forearm and wrist we can usually make out the well known table fork deformity as described by the French authors.

There may be absence of the usual symptoms of ordinary fracture, as well marked crepitus or abnormal mobility.

The *one* important sign which we should *always* bear in mind in *this* as in *fractures in any locality*, is marked tenderness upon *palpation* exactly over line of fracture.

In some cases it may be difficult to differentiate between fracture and dislocation. The distinguishing difference is the shortening in fracture. This can be detected by measurement of the forearm and hand from the tip of the olecranon process over the dorsal aspect to the tip of one of the fingers compared with the sound side, when, if fracture exists with displacement, there will be shortening; whereas, a dislocation will either not change the length or will increase it.

The *prognosis* of injuries of the wrist depend very largely on the treatment. An uncomplicated Colles' fracture properly reduced and treated almost invariably results in complete recovery. When the line of fracture is oblique or extremely so, the difficulty of retaining the broken ends in normal position is greatly increased, consequently the prognosis more obscured.

In cases where the line of fracture involves the joint surface, the liability of ankylosis is much increased and is liable to supervene unless care is exercised to prevent it.

We should always give a guarded prognosis in cases of complete traumatic dislocation, for the joint capsule and some of the ligaments are always torn either through their continuity or at their bony origin or insertion, and very often recovery will be prolonged or sometimes incomplete.

Injuries to joints from a clinical standpoint are always to be looked upon as more serious than fractured bones, and I might add that we have but few fractures in any part of the body which do not involve one or more of the neighboring joints as well as soft tissues. One of our best authorities has, by compiling statistics, shown that on the average fractures with injuries to neighboring structures, require from twelve to fourteen months' time for complete recovery.

The complications which result in unfavorable or delayed results, are displacement of fragments, stiffness of neighboring joints, hypertrophy of the callus, delayed union, pressure on nerves, persistent pain, and oedema of the limb. These facts should stimulate our attention to details in treatment not only of compound but simple fractures and dislocations.

The *treatment* of fractures and dislocations of the wrist is, of course, not unlike that in other regions of the body excepting wherein it would be influenced by the anatomical differences.

In Colles', where the line of fracture is transverse, there is but little tendency to re-displacement if the fractured ends are perfectly coapted, consequently the kind of retention splint or dressing is not of so much importance as the perfect reduction of the deformity. This is best effected by direct pressure while strong traction is being made with the hand forcibly bent toward the ulnar surface. It is best when possible to have two assistants who may be members of the family or household, one grasps the patient's arm above the elbow while the other grasps the fingers with one hand and the thumb with the other, making the traction and forcibly bending the hand as indicated, while the surgeon with fingers over the prominent end of the palmar side and thumbs on the displaced fragments of the dorsal side, can usually effect perfect reposition.

This is one of the *few* fractures where an anesthetic can sometimes be employed to the best possible advantage on account of the liability of impaction of the fractured ends, and the necessity of overcoming muscular contraction in effecting perfect reduction. In this respect we should consider this an exception to the rule as in most fractures better results can be attained *without* the struggling incident to giving an anesthesia than can be expected with its employment.

If the line of fracture be oblique more care must be exercised in retaining the fragments.

In selecting a form of dressing or splint we are of course to be influenced by the materials at hand as well as the kind of fracture, habits and occupation of the patient, etc.

The properly padded board in form of anterior and posterior splint, fulfils the indications quite well if wide enough to prevent side pressure on the bones of the forearm. I will speak of the various forms of ready made splints only to condemn them unless they be of a flexible material susceptible of being moulded to fit the given case. I am firmly convinced that the ready made splint has done more harm than can

be estimated. To illustrate this, I wish I might be able to bring before you a case which recently came to me wearing one of these beautifully carved implements with the information that I might keep it until the patient had recovered, but as beginning pressure, necrosis and malposition of the fractured bones existed, I returned the splint by first express. I am happy to say, however, that it did not come from an Ingham County physician.

A favorite form of dressing with many, including myself, is the plaster cast applied while the hand and the forearm rest on the patient's knee in the proper position after the reduction is effected; the plaster is applied to the posterior side and allowed to dry, when an anterior half can be added and the two held in position by a few turns of a roller bandage. The advantages of this splint are that the limb may be easily inspected and that it fits the limb perfectly. Dr. Moore, of Rochester, has devised a dressing which incorporates only about three inches of the wrist corresponding to the seat of injury which would be sufficient in most cases if the patient were never to sleep, drink or fall, but after a trial I concluded it unsafe and have abandoned its use.

Undoubtedly one of the most frequent and serious mistakes made in the treatment of fractures is that of immobilizing joints for too long a period after accident. All splints of whatever kind or locality should be removed at least every seven or eight days for inspection of the parts. In Colles' fracture the retention dressing can usually be left off at the end of three weeks, when active motion of the joints with daily massage of all the involved structures should be practiced.

Massage is one of the most valuable agencies at our command in hastening repair of damaged structures and with a few moments' instruction from the physician some member of the family can be made to render most valuable assistance.

One more important rule which we should always observe in the treatment of Colles' fracture is to *never immobilize the fingers* in any form of dressing. Allow the splint to extend only to the base of the fingers, leaving them free to active and passive motion. There is no question but that lots of damage has been done by fixing the tendons which pass by the injured wrist joint during the inflammatory stage of repair.

L. ANNA BALLARD, Sec'y.

MENOMINEE COUNTY.

The Menominee County Medical Society held its annual meeting and elected the following officers:

President—R. G. Marriner, Menominee

Vice-President—E. Grignon, Menominee.

Sec.-Treas.—R. A. Walker, Menominee.

Director for three years—H. A. Vennema, Menominee.

Delegate—C. R. Elwood, Menominee.

ROBT. G. MARRINER, President.

MONTCALM COUNTY.

The first quarterly meeting of Montcalm County Medical Society was held at Greenville, January 12, 1905.

The Michigan State Nurses' Association was recognized by the following resolution:

"Be it resolved and recommended by the Montcalm County Medical Society, that the registration of trained nurses is of value; that the state of Michigan should grant such registration to those nurses who by a course of study and training in hospital, shall show their competency to perform their duties to the full satisfaction of the physician and patient."

There was no action taken on the free clinic question connected with the university.

The society, by motion, expressed itself in favor of the amendment pending in the state society, relative to the house of delegates, viz., that the power to vote be limited to the delegates elected by the component county societies.

The society, further by motion, expressed itself in favor of dividing the medical course in Ann Arbor, so that at least a portion of the clinical course be taken in Detroit, where there is more abundant clinical material.

By motion, the society recommends that the legislature of the state, establish a sanatorium for the treatment of incipient tuberculosis, said sanatorium site to be selected with especial regard to climatic and soil conditions which especially exist in this section of northern Michigan.

F. R. Blanchard, of Lake View, was elected the delegate to the State Medical Society, and W. P. Gamber, of Stanton, was made his alternate.

A. W. Nichols read a paper on abdominal surgery.

Abstract:

The doctor reviewed quite extensively the history of abdominal surgery and the various

opinions held as to its antiquity. He said that abdominal surgery was looked upon as a very grave operation by his instructors of thirty years ago, and certainly such men as Frank H. Hamilton, Samuel D. Gross, Thomas, Emmett, Hunter, Ward, Lewis A. Sayer, Markoe, Post, and many other surgeons who have been the founders of American Surgery, are deserving of our consideration.

Senn, and men of his wide experience, urge abdominal surgery in almost every disease of the abdomen, including dropsy, peritonitis, uterine and ovarian diseases, disease of the appendix, obstruction of the bowels, many kidney ailments, diagnosis of stomach difficulties, diseases of the biliary tract; and his latest advice is to open into the abdomen for tubercular troubles, either of the omentum or intestines.

The medical profession have rather a tendency to go to extremes. The old practitioner delighted in his large doses of boneset and calomel, and the liberal use of mercurial ointments, until it was about as dangerous to have a doctor as it was to get well without his aid.

Upon this aggressive method of treatment grew the Eclectic System of medicine, guaranteed not to loosen a tooth. But yet the doses were large and nauseous. And then sprung up Homeopathy and its infinitesimal doses. And now we are in the great wave of abdominal surgery, and operations must be performed. Therapeutics and rational practice of medicine have lost their foothold and must give over to the liberal use of the knife. Pretty careful reading and a continuous practice of years lead me to believe that the knife is doing more damage than good, although I am a firm believer in its judicious use.

I was called upon to see a lady a short time ago. Her daughter wanted to know if I thought it would not be advisable for her mother to be operated on and have her ovaries removed. I said, "Where did you ever hear anything about that?" "Oh," said she, "I have had mine removed." "Do you know of anyone else who had their ovaries removed?" "Yes, there are four young married ladies all of whom I am acquainted with and who are my neighbors." I asked her what city she lived in at the time and who performed the operation. Although I am well acquainted with the physicians of that city, I never heard of this physician or surgeon.

It was but recently that a patient came to me from outside who was suffering from a slight bilious attack and nothing more, who said that her physician advised her to go to the hospital and he would remove her ovaries.

The leading surgeons are not to be found fault with in this respect, and I do not know that the beginners are. Unless the physician can perform laparotomy, not only can but does, his opinion is valueless. There is danger in abdominal surgery. The slight pick of a pin or needle may produce blood-poisoning. Those who know could reveal a history or present a panorama of results of meddlesome abdominal surgery, unskilled surgery; aye, even of skilled surgery sometimes, that would be most appalling.

I do not know but it may be necessary that a special statute be enacted appointing a Board of Censors, who shall determine the advisability of these important operations. We thought there had been too much power conferred by the Constitution on our Governor, and so a Board of Pardons was provided by Legislative Enactment.

The paper was discussed by Drs. Blanchard and Black favoring liberal abdominal section while Drs. Avery, Nelson and others thought there should be more of a tendency to conservatism.

NEWAYGO COUNTY.

The Newaygo County Medical Society held its annual meeting and elected the following officers:

President—N. DeHaas, Fremont.
 Secretary-Treasurer—F. H. Brown, Newaygo.
 Delegate—N. DeHaas, Fremont.
 F. H. BROWN, Sec'y.

OSCEOLA COUNTY.

The Osceola County Medical Society held its annual meeting. The following officers were elected:

President—J. W. Newcomb, Reed City.
 Vice-President—A. Holm, Ashton.
 Secretary-Treasurer—T. F. Bray, Reed City.
 Delegate—A. Holm, Ashton.
 T. F. BRAY, Sec'y.

SANILAC COUNTY.

The Sanilac County Medical Society held its annual meeting January 23, 1905. The following officers were elected:

President—D. D. McNaughton, Argyle.
 Vice-President—J. E. Campbell, Brown City.
 Sec'y-Treas.—G. S. Tweedie, Sanilac Centre.
 Delegate—J. S. Little, Sanilac Centre.
 Alternate—G. Simonton, Marlette.
 G. S. TWEEDIE, Sec'y.

WAYNE COUNTY.

The Wayne County Medical Society held its regular general meeting January 31, 1905.

James E. Davis read a paper entitled, "Immediate Detection of Injuries to the Birth Canal Resulting from Child Birth,"

Summary:

1. Immediate detection of birth canal injuries is most frequently not observed because of the indisposition on the part of the attending physician.

2. A clear knowledge of the pelvic anatomy is of the utmost service in determining the importance of each injury.

3. Immediate detection of the precise injuries precludes early repair, which possesses every possible advantage to the patient and is the duty of the obstetrician.

4. The methods of detection and plan of classification of these injuries are of little practical use if not made clear and simple to all who do obstetrical work.

The plan to have the state legislature make provision for the establishment of a state sanatorium for consumptives was presented and the Society passed a resolution endorsing the plan and a committee of three was appointed to assist the M. S. M. S. committee in their work.

H. W. Yates gave the history of a case of persistent anuria and asked the members present for some help in the case.

A motion was made and passed that the Society endorse the action of the A. M. A. in becoming incorporated.

WILLIAM G. STAPLETON, JR., Sec'y.

The Surgical Section held its monthly meeting January 23, 1905.

Ray Connor read a paper on "Recent Work in Ophthalmology." This paper appears in full on page 66 of the February issue of the Journal.

In opening the discussion, Leartus Connor said that the writer is certainly right in saying that there has been no important research and no epoch making discovery during the past year, yet in the thousands of pages which have been written, much has been gained in filling in the gaps of our knowledge and in correcting former mistakes.

Physics plays a more important rôle in ophthalmology than in any other branch of medicine and the importance of a careful study of this science should be encouraged.

It is noticeable that the number of workers in the specialty have rapidly increased as have also the number of special journals.

Ophthalmology has suffered like other branches of medicine, from the enthusiasts. Gould says that 99 per cent. of the cases of migraine can be cured by the proper correction of refractive errors. While his enthusiasm has carried him beyond the limits of observed facts and logical reason he has drawn attention to what has been known for many years that refractive errors have much to do in causing many functional and some organic diseases—both in and outside the eyes.

Don Campbell said that no work needs more careful attention than that of refraction. It is quite a recent idea that refractive errors are at the bottom of certain organic lesions of the fundus. If this be true, poorly fitted glasses may cause much mischief.

Vernal catarrh is a form of conjunctivitis which is especially chronic and rebellious to treatment. Recently it has been looked upon as a local manifestation of a constitutional affection and its treatment with salicylate of soda has given very good results.

The use of dionin, an alkaloid of opium, to stimulate the lymph secretion of the structures around the eye and within the eye-ball, has been a decided step in advance.

Methyl alcohol poisoning has been on the increase because the manufacturers have recently found a method of deodorizing it and substituting it for grain alcohol.

Fleming Carrow said that it is well to stop now and then and take stock of our knowledge; hence the value of a paper like Dr. Connor's.

Recent methods of photographing the fundus will add much to our exact knowledge. The difficulty along this line, heretofore, has been in obtaining a focus on the concave surface of the retina.

Subconjunctival injections seem superfluous for we can apply our remedies directly to the inflamed surface.

Emil Amberg discussed "Some Points of View as to the Time to Perform Myringotomy and the Mastoid Operation."

Abstract:

Of practical importance is the opposition recently raised against the incision of the drum membrane in acute suppuration of the middle ear. Professor Buerkner intended to test the claims of the ultraconservatives on 50 cases but he had not the heart to continue the palliative treatment

after he had watched 44 cases, and he returned to the rule practised by him for 25 years, viz.: to create as soon as possible a passage, in cases which have violent pain, considerable fever and partial or complete bulging of the reddened drum membrane. Koerner has also shown the advantage of early myringotomy many years ago.

The essayist expressed the opinion that a fixed rule can not be established for all cases of mastoiditis because many factors are present and at work, the importance of which can not be estimated correctly. The power of resistance of the tissues, the character of the microbes, their virulence and ability to produce toxins can not be measured by the thermometer or the watch. Also the variations in the anatomical configuration of the mastoid process can not be determined with certainty from the outside. The author divides the acute form into three groups: Mastoiditis acutissima, acuta and subacuta.

In case of doubt whether to open a mastoid or not, we should remember that we can never be too early but by hesitating we may be too late. An antrotomy in acute mastoiditis can be compared to a myringotomy in acute, suppurative otitis media. The views (on the mastoid operation of several authorities) were stated.

Don Campbell commended the early opening of the tympanum in acute middle ear suppuration and also the early performance of the mastoid operation. In reply to Dr. Bell's question as to what is meant by "early," Dr. Campbell said that the operations should be done as soon as the diagnosis can be made.

Leartus Connor stated that the time for operation can not be measured by days nor by hours but as soon as the case ceases to improve operation must be advised.

R. B. Canfield, of Ann Arbor, read a paper "The Treatment of Chronic Empyema of the Antrum, Both Simple and When Combined with Empyema of the Ethmoid and Sphenoid."

Abstract:

Forty per cent. of all cases of antral disease are simple, that is are not combined with disease of other accessory sinuses. In the other sixty per cent. a favorite combination is with disease of the ethmoid and sphenoid. In combined cases the treatment of the antrum includes the treatment of the other cavities affected. Attention should be paid not only to the treatment of the local condition but also to the general health. A course of tonic treatment and personal hygiene often yields gratifying results in obstinate cases.

Empyema is a disease of extension, arising either from infection from a carious tooth, or by extension of some disease process from the nose, syphilis, tuberculosis and malignant growth being excepted.

The line between conservative and radical surgery of the accessory sinuses has been too sharply drawn. The best results are secured by careful attention to details of treatment required in each case. The first step is to learn definitely the exciting cause. If it be a carious tooth, it is to be removed together with any diseased bone in its neighborhood. From this point on the treatment should be carried on through the nose. Treatment through the alveolar process is generally only a waste of time. It is applicable to those cases only in which the antrum alone is diseased and must be considered insufficient as soon as it is learned that other cavities have been attacked. Again any communication between the antrum whose resistance against additional infection is lowered and the mouth cavity, the secretions of which are laden with pathogenic germs of all kinds, is to be deprecated. The patient must wear an obturator in his mouth for the rest of his life if the opening is to remain permanent or he must be in danger of a recurrence if the wound be allowed to close. Then too, the drainage of pus into the mouth has a bad effect both upon the patient's nervous condition and upon his general health.

The intra-nasal method is the best, and includes the removal of all pathological nasal conditions, which can either interfere with proper nasal respiration, or act as sources of infection and reinfection, as do adenoids, tonsils and polypoid turbinates. Proper nasal respiration is most important as it draws not only air but also secretion out of the sinuses. The antrum may be entered through the inferior or middle meatus. The inferior is generally to be chosen. An opening three-quarters of an inch by one-half inch is made by means of an electric drill, and the antrum is thoroughly irrigated, and dried by means of air heated to as high a temperature as can be comfortably borne by the patient. Stress is laid upon leaving the cavity thoroughly dry after each treatment. Care should be taken not to splinter the bony lateral wall of the nose nor to force bits of bone into the antrum.

If the ethmoid is diseased it can be reached by removing the anterior end of the middle turbinate and the uncinat process, after which small ethmoids can be fairly well cleaned out through the nose.

The condition of the sphenoid can be learned by catheterizing it through a slender canula. When its orifice can not be seen on account of a deviation of the septum or hypertrophied turbinate, it can still be reached by passing a soft silver canula along the cribriform plate to the posterior naso-pharyngeal wall. It can then be irrigated, if diseased, any obstructing deviation or turbinate must be removed before beginning to treat it. Its treatment is practically the same as that of the antrum.

If the case proves obstinate, every means should be tried to learn the cause, including the use of the X-ray. If more radical measures are necessary the Luc-Caldwell operation should be tried. This operation can be done under local or general anæsthesia, and includes resection of the facial wall of the antrum through the opening of which the diseased tissue in the antrum can be removed, and the ethmoid and sphenoid treated. The opening into the nose should be enlarged and the after treatment carried through it. The buccal incision is sutured for primary union if the pathological condition will allow. If the buccal incision can not be closed the after treatment can be shortened by skingrafting the antrum. Later the wound should be closed.

The duration of the after treatment depends upon

- (1) Size and shape of the sinus.
- (2) General condition of the patient.
- (3) Character of the infection.
- (4) Character of the pathological change.
- (5) Combination with disease of other sinuses.
- (6) Attention to details of treatment.

Wadsworth Warren, in opening the discussion, said that the intra-nasal method of attacking the antrum is the proper one. I believe that the amputation of the anterior portion of the middle turbinate is necessary to admit of free drainage. Few of us are able to discuss the paper, for there are few who can operate on more than the anterior ethmoidal cells. I never but once have introduced a probe into the sphenoidal sinus.

I believe that the points brought out are of great importance. The operation should be done intranasally rather than through the alveolar process. An opening through the latter can not be kept patent. I believe that the rhinology of the future will frown on any other than the intra-nasal method.

Willis Anderson: I especially wish to commend the intelligent conservatism expressed in the paper and am favorably impressed by the advocacy of the intra-nasal route.

I always take advantage of an opportunity of studying the relations of the accessory sinuses. We have in them a continuous line of cells which may open into one another in a variety of ways, hence it is very easy for infection to travel from one set of cells to another.

The principles of establishing free nasal drainage and free nasal breathing are important in treating affections of these cavities and if the anterior part of the middle turbinate is taken away, the drainage is more satisfactory.

Ideal cure is not always possible but if the symptoms can be relieved we have often done as much as is practicable. It is better to be conservative and relieve the symptoms than to be radical and produce deformities.

B. R. Shurly: Disease of the accessory sinuses is one of the most interesting conditions with which the rhinologist has to deal. Much of the work regarding it is still in the experimental stage and there are various views concerning it. We rarely meet with cases which require radical operation. By more conservative methods we may relieve the symptoms, viz.: (1) neuralgia; (2) purulent discharge, and (3) the development of polypi. If we can relieve these we need not proceed further.

Washing out the antrum can be done at once and will relieve those cases which are of recent origin. In case there is a canal, already prepared by the extraction of a carious tooth, the insertion of a canula and a few weeks of irrigation will bring about a cure.

In the great majority of cases the very radical operation as practiced on the continent is not necessary.

R. E. Loucks stated that surgical interference should be determined by the etiologic factor. Sixty per cent. are due to carious teeth and 40 per cent. to intra-nasal causes. The rule should be, when there are carious teeth, attack from the mouth; when the cause is nasal, reach them from the nose. I have seen no bad results from the treatment by a canula introduced through the alveolar process.

P. M. Hickey said: One should early determine as to whether the infection is from the mouth or from the nose. The prognosis is better when from the nose.

In a case which I have recently seen, a radiograph showed an abscess with necrosis of the root of a tooth next to the one which had been extracted, showing that the source of the trouble had not been reached. Certain of the cases in

which the infection is from the mouth do well. Each case should be most carefully studied as to the etiologic factor and treatment directed accordingly.

B. R. SCHENCK, Sec'y Surgical Section.

Miscellaneous.

NEWS ITEMS.

A bill to appropriate \$300,000 to the Free Hospital for poor consumptives at White Haven, Pennsylvania, has been introduced into the State Legislature of Pennsylvania. Of this sum \$100,000 is for the maintenance of the sanatorium at White Haven; \$100,000 to assist in the erection and equipment of new buildings to increase the capacity to as near 300 beds as possible, and \$100,000 to assist in purchasing a site at a suitable location and in erecting buildings for the care of more advanced cases of tuberculosis than can be accommodated at White Haven.

A bill has been introduced into the New York legislature, making an appropriation of \$90,000 for additional cottages for patients at the Craig Colony for epileptics. The census of the colony at present exceeds 1,000. There are more than 700 applicants on the waiting list who can not be admitted from lack of room. If the amount asked for becomes available, buildings for 200 additional patients can be put up.

A bill has been introduced into the New York legislature that directs that New York shall provide a hospital and a competent staff of physicians to deal with the treatment of persons rendered mentally or physically incompetent by the excessive use of alcoholic liquors, opiates, or narcotics. It also directs that the mayor shall appoint three physicians to serve in the hospital which is to be supported out of the money collected for excise taxes. Commitment to this hospital is to be made on the sworn statement of a father, mother, or some other relative or friend of the person addicted or by a city magistrate. The new hospital is designed to take the place of the present alcoholic ward at Bellevue Hospital.

A bill has been introduced into the Kansas legislature allowing the University of Kansas to

give clinical instructions in medicine at the various State Hospitals and also at Kansas City where a hospital site and some \$25,000 have been given for it. If this bill becomes a law the medical department of the University will give its scientific and didactic work at Lawrence in the regular laboratories and then send its students in sections to take practical work in the hospitals.

Dr. William T. Councilman, professor of pathology in the Harvard Medical School, disputes the findings of the Roswell Park Commission in its study of cancer, which were to the effect that cancer can be cured by a serum. The doctor stands by the findings of the Harvard experts who recently came to the conclusion that cancer is amenable only to surgical procedure.

Dr. Livingston Farrand, Professor of Anthropology at Columbia University, has been named as the head for the current year of the National Association for the Study and Prevention of Tuberculosis.

When the term of Senator Ball, of Delaware, expires on March 3rd, the medical profession will be left with but one representative in the United States Senate, Senator Jacob H. Gallinger, of New Hampshire.

E. R. Squibb & Sons, of Brooklyn, has been incorporated. Mr. Theodore Wercher, who was formerly the senior partner in the firm of Merck & Co., is the president of the corporation. Drs. E. H. and C. F. Squibb retain their interest in the firm and Dr. Edward H. Squibb is the chairman of the board of directors.

The semi-annual meeting of the Medical Society of the Missouri Valley will be held in Kansas City, March 23, 1905. An invitation has been extended to the Presidents of the State Associations within the territory embraced by the Missouri Valley.

Professor J. P. Remington, one of the editors of the United States Pharmacopeia is quoted as asserting that drugs 100 per cent. pure would be a thing of the past in this country with the assurance of the forthcoming publication. He says, "We shall recommend in this publication that pure drugs are not absolutely

necessary. For instance sulfate of quinin 99 per cent. pure is just as good and effective as one absolutely pure, and it does not make any difference what that other 1 per cent. is so long as it is not injurious. Now that it is recognized that chemicals need not be chemically pure we intend to introduce harmless foreign substances."

The office of a genito-urinary "specialist" in New York City was raided recently by the police and the two "doctors" and a clerk in charge were locked up in the Tombs. The evidence by which the indictment was secured was based mainly on an investigation conducted by C. S. Andrews, counsel for the County Medical Society. It was learned by the assistance of a detective, who posed as a wealthy western woman that nearly \$10,000, the saving of a life time, had been mulcted from a carpenter who was being treated for alleged Bright's disease by means of "radium." This was supplied in ounce bottles, costing the victim \$1,500 each and which required frequent renewal. Analysis of the solution of course showed no trace of radium. When the arrest was made, thirty-five well-dressed women were waiting in the sumptuously furnished reception room of the "doctors'" office.

CHANGE IN MEMBERSHIP.

(Jan. 15 to Feb. 15.)

NEW MEMBERS.

R. W. Alton, Portland, Mich.
T. S. Barclay, Detroit, Mich.
H. M. Best, Ludington, Mich.
G. G. Burns, Fremont, Mich.
J. G. Conner, Ionia, Mich.
G. L. G. Cramer, Owosso, Mich.
C. C. Dellenbaugh, Portland, Mich.
H. E. Emmert, Detroit, Mich.
Jas. E. Ferguson, Belding, Mich.
D. Fleischauer, Reed City, Mich.
Chas. Freiberg, Bay City, Mich.
W. A. Grant, Lyons, Mich.
W. R. Grant, Lyons, Mich.
J. C. Grosjeau, Pinconning, Mich.
F. L. Hoag, Hubbardston, Mich.
B. F. Horner, Lake Odessa, Mich.
J. S. Ingram, Bailey, Mich.
F. A. Johnson, Greenville, Mich.
J. M. Jones, Bay City, Mich.
N. D. Kean, Ishpeming, Mich.
Louise Lypp, Detroit, Mich.
D. McClung, Portland, Mich.

D. W. McFadyen, W. Bay City, Mich.
W. D. McHugh, Ewen, Mich.
F. M. Marsh, Ionia, Mich.
F. B. Marshall, Muskegon, Mich.
M. T. Moore, Richmond, Mich.
F. Morse, Sebewa, Mich.
J. W. Newcomb, Reed City, Mich.
P. Van Riper, Champion, Mich.
R. S. Rowland, Detroit, Mich.
C. W. Snyder, Clyde, Mich.
C. M. Swantek, Bay City, Mich.
S. D. Swantek, Detroit, Mich.
J. N. Swartz, Detroit, Mich.
Max Vardon, Hillsdale, Mich.
A. E. West, Eaton Rapids, Mich.
A. R. Williams, Brookfield, Mich.

CHANGE OF ADDRESS.

J. H. Andrus, Negaunee, Mich.
L. L. Goodnow, Michigamme, Mich.

DIED.

A. F. Hagadorn, Bay City, Mich.

BOOKS RECEIVED.

INTERNATIONAL CLINICS. Volume IV. Fourteenth Series. J. B. Lippincott Co., 1905.

A TEXT-BOOK OF LEGAL MEDICINE. By F. W. Draper, A. M., M. D. W. B. Saunders & Co. Philadelphia, New York, London. 1905.

PRACTICAL PEDIATRICS. By Dr. E. Graetzer. Translated by H. B. Sheffield, M. D. F. A. Davis Co. Philadelphia. 1905.

EYE, EAR, NOSE AND THROAT NURSING. By A. E. Davis, A. M., M. D. and Beaman Douglas, M. D. F. A. Davis Co. Philadelphia. 1905.

A COMPEND OF THE DISEASES OF THE EYE AND REFRACTION. By G. M. Gould, A. M., M. D. and W. L. Pyle, A. M., M. D. Third edition. P. Blakiston's Son & Co. Philadelphia. 1904.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION. By G. M. Beard, A. M., M. D. Edited by A. D. Rockwell, A. M., M. D. Fifth edition. E. B. Treat & Co. New York. 1905.

TRANSACTIONS OF THE STATE MEDICAL ASSOCIATION OF TEXAS. 1904.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY. 1904.

TRANSACTIONS OF THE SOUTH DAKOTA STATE MEDICAL ASSOCIATION. 1903-1904.

POLITICS IN NEW ZEALAND. By Frank Parsons and C. F. Taylor. Published by C. F. Taylor. Philadelphia. 1904.

Book Notices.

Under the Charge of

RAY CONNOR.

INTERNATIONAL CLINICS. Edited by A. O. J. Kelly, A. M., M. D. Volume IV. Fourteenth Series. 1905. 314 pages. 79 illustrations. Cloth, \$2.00. J. B. Lippincott Co. Philadelphia, New York, London. 1905.

The present volume is a fitting completion of the fourteenth series. The various teachings of Continental, English and American writers can be found in its pages. The section on Treatment is nearly monopolized by the French authors. Hayem contributes a good article on the Excessive Use of Drugs in the Treatment of Chronic Diseases, with Reference to Medicinal Intoxication. Myron Metzenbaum considers Radium: Its Value in the Treatment of Lupus, Rodent Ulcer and Epithelioma.

In the section on medicine Chronic Polycythemia with Enlarged Spleen (Vaquez's Disease), Probably a Disease of the Bone-Marrow is the first article. Weber and Watson report a fatal case of this rare affection and go into the question of its etiology. Other excellent articles are to be found in this section by S. Solis Cohen, Duckworth and Senator.

Orthopedic work receives especial prominence in the surgical portion of the volume. Bradford contributes an excellent and profusely illustrated article on Lateral Curvature of the Spine. Chronic Arthritis and Tuberculous Spondylitis are considered by different authors and other excellent articles are to be found under Gynecology, Neurology and Pathology.

The volume as a whole seems quite up to the standard of this well known and popular publications.

EYE, EAR, NOSE, AND THROAT NURSING. By A. Edward Davis, A. M., M. D., and Beaman Douglass, M. D. With 32 illustrations. Pages XVI-318. Size, $5\frac{1}{2} \times 7\frac{7}{8}$ inches. Extra Cloth. Price, \$1.25 net. F. A. Davis Company, Philadelphia. 1905.

This attractive little book takes up many things of prime importance not only to the nurse but also to the doctor who must often instruct parents or friends as to how to do the simplest details of the necessary treatment. A brief description of the anatomy of the special senses precedes the treatment of the various forms of disease. The cleansing of the various structures is gone into in detail and much valuable and practical information given not only serviceable for nurses but also for those who are not thoroughly familiar with handling this class of cases.

The arrangement of the book is good and the style clear and concise. The illustrations are mostly from photographs and are excellent. The mechanical features of the book are quite satisfactory and it should find a useful and extended field.

A COMPEND OF THE DISEASES OF THE EYE AND REFRACTION, including Treatment and Surgery. By Geo. M. Gould, A. M., M. D. Third edition. Revised and Corrected. 296 pages. 109 illustrations. Cloth, \$1.00 net. P. Blakiston's Son & Co., Philadelphia. 1904.

As might be expected from its authors, this number of Blakiston's Quiz-Compendis is especially full on the side of refraction which with the examination of the eye takes up nearly one-half of the work. The consideration of the diseases of the eye is very good however and a great deal of useful knowledge has been condensed into convenient form. In the brief list of local ocular therapeutics, one misses such well known and useful drugs as argyrol and dionin which might well have been substituted for others had space demanded.

The illustrations are numerous and as a rule useful although the representation of the normal fundus and the other colored drawings leave much to be desired. A glossary and index complete the book.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION (Neurasthenia), Its Symptoms, Nature, Sequences, Treatment. By George M. Beard, A. M., M. D. Edited with notes and additions. By A. D. Rockwell, A. M., M. D. Fifth edition, Enlarged. Price \$2.00. E. B. Treat & Company, New York City. 1905.

The fifth edition of Beard & Rockwell's work on Nervous Exhaustion is quite similar to their fourth edition. Chapter six has been rewritten and chapter seven added. The last chapter is given up to the "neuron theory" in its relation to the treatment of neurasthenia. As has been said "even if the neuron theory is not susceptible of proof, it is at least a good working hypothesis." The chapter on Hygiene of Nervous Exhaustion is excellent and is well worth the attention of the physician who is so constantly meeting cases of this sort. This book has found practical favor with the medical man in the past as is shown by the number of editions it has passed through. No doubt it will meet the approval of a large part of the profession in the future.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Insects and Transmission of Disease.—The following diseases are wholly or partially transmitted by insects: a. Malaria—the plasmodium malaria requires two hosts for its full development. One must be the mosquito. b. Yellow Fever—the mosquito genus, *stegomyia*, seems necessary as a preliminary host for the germ. c. Elephantiasis—the *filaria sanguinis hominis* is probably always transmitted through the mosquito. d. Trypanosomiasis, due to the animal parasite *trypanosoma* found in the blood of the affected animals producing different diseases in different animals is transmitted by insects. The disease most known about is the sleeping fever affecting the colored population of Africa carried by the Tsetse Fly. f. Relapsing Fever. This seems to be transmitted by the bed bug. g. Texas Fever of cattle conveyed by the tick *Boophilus bovis*. h. Typhoid Fever. A certain proportion of cases of typhoid is due to the spread by flies. The typhoid bacillus has been isolated from the fly. It has been proved that the germ can remain active in the fly for at least twenty-three days. i. Tuberculosis—Flies here play a certain role, the exact value of which is not altogether known. j. Plague. This disease seems often to be transmitted by fleas, either those that infest the human being or the rat flea. This flea leaves the animal as soon as it gets cold. k. Cholera partially at least by flies. l. Yaws. While the cause of the disease is unknown, there seems some connection between the “yaws flies” and the disease. m. Leprosy. It is likely that it is conveyed by flies and mosquitoes. n. Anthrax seems to be carried frequently from animal to animal by flies and occasionally so from animal to man. o. Worms. The swallowing of insects has caused tapeworm infection for part of the life of some varieties is spent in the bodies of fleas and dog lice. p. Impetigo Contagiosa. There is evidence that this may be conveyed through the medium of lice. Experimentally this has been done in fifty per cent. of the children exposed. q. Purulent conjunctivitis such as the Egyptian Ophthalmia and Florida Sore Eyes are probably transmitted by flies. r. Ordinary Infection—Fly bites have produced erysipelas, meningitis, and septicaemia. Probably other diseases can so be produced.

Of the mosquitoes concerned in conveying disease none are the common variety. Of the flies the common house fly is the one that causes the trouble. As such a fly is a rapid mover it is not at all impossible that some of the so-called sporadic forms of disease are results of fly infection.—(HENRY ALBERT, *New York Medical Journal*, Feb. 4, 1905.)

Abuse of Water Drinking in Disease.—The abuse of water drinking is not an American vice but is universal. It is most done at the various mineral springs where the principle seems to be to drink as much as possible no matter what the disease. The normal quantity of water for the healthy adult exclusive of the water in the food is from one and a half to two litres a day. Of this two-thirds appears in the urine, and one-third is retained in the body. Only a small amount, about ten per cent. of the water is absorbed from the stomach, the remainder passed into the intestines. It should be remembered that all water taken into the system must be excreted by the heart's force and so causes an additional drain on it if weak.

Water drinking has the following effects on the body: It acts on the metabolism, the temperature, the circulation especially the heart, the glandular secretions, and peristalsis. The most important effects are on the metabolism and circulation. The increased drinking of water does not increase the breaking up of albumins. It does cause a temporary increased excretion of urea but this stops if continued for a few days. But this seems to increase all the metabolism to some extent.

Hot water in small quantities raises pulse rate and lowers blood pressure; cold water lowers pulse rate and raises blood pressure. Lukewarm water lowers blood pressure. Water at ordinary temperature has no effect. These effects cease in twenty minutes and are due to influence on the vasomotor centers. Diuresis depends not upon the water in the body but upon the blood pressure in the kidneys. The relation of water drinking at meals to obesity resolves itself into the fact that with more water used more food can be taken and relished.

Water drinking is most abused in nephritis. It has been found that instead of increasing the quantity taken it should be restricted to 500 to 700cc; especially is this necessary in the late stages of the interstitial form.

In heart disease the abuse of fluids is not quite so apparent, but just as bad. The dry diet is often of the greatest value in cardiac disease. The chronic hyperaemia of the kidney, the existence of dropsy, hydræmic plethora and anaemia in chronic cardiac trouble is enough to warn against too much liquid diet. In chronic gastric and intestinal troubles too much water is used; following the ideas of Salisbury and Banting such patients are known to secrete but little urine. In chronic troubles if much water is to be used the patient should be put to bed and so the circulation as little as possible will feel the strain.—(MANGES, *N. Y. Medical Journal*, Jan. 21, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

Blindness After Injection of Paraffin Into a Saddle Nose.—Mintz, of Moscow, injected 5 grs. of Paraffin (melting-point of 43c.) under the skin of a saddle-nose in order to improve this deformity. The same patient had been injected once before without any bad results. Three minutes after the injection, sharp pains were felt in the left eye, a little later the left eye became totally blind. Ophthalmoscopy did not show any embolism of the central artery of the retina, but showed overfilled veins. Twenty-four hours after the injection, exophthalmus, chemosis and cloudiness of the cornea were noted on the left eye. The skin around the injection on the nose, became necrotic. Exophthalmus and chemosis disappeared slowly, but the optic nerve became atrophic. In this case there was thrombosis of the external nasal veins, these veins extending into the inferior ophthalmic and finally into the central vein of the retina.

As this is the third case on record of blindness after paraffin injection, Mintz, who was very careful in his technique, begs us not to consider paraffin injection a trivial operation.—(*Zentralblatt fuer Chirurgie*, 1903, No. 2.)

Hepatic Abscess.—Hepatic abscess is a pathologic condition that has been recognized for many centuries.

It is widespread in its occurrence.

The so-called "tropic liver abscess" occurs most frequently in the hot countries

Hepatic abscess is at times the result of trauma. Usually, however, it is the result of invasion of the hepatic tissue by various forms of parasitic protozoa and pyogenic organisms.

That form commonly known as "amebic abscess of the liver," is in reality not an abscess, but rather a necrosis and liquefaction of hepatic tissue. When pus is encountered, it is the result of contamination by pyogenic organisms.—(NORVELLE WALLACE SHARPE, *American Medicine*, Vol. IX, No. 4.)

Stones in Both Kidneys.—Treplin reports five cases of sudden anuria, caused by obstruction of both ureters, by stones.

1. In sudden anuria of this kind, operation is imperative. Cases in which large stones in both kidneys interfere with sufficient function of the organs, should also be operated upon.

2. In case of sudden anuria by obstruction of both ureters, operation on one kidney is sufficient, for the time. In case of large stones in both kidneys, both kidneys should be operated upon.

3. In case of sudden anuria, the presumably better kidney should be first freed from stone. In cases of the second kind—large stones in both kidneys—the more diseased kidney should be operated upon first.

4. Catheterization of both ureters and determination of cryoscopic values—(freezing point of urine)—of the urines segregated from both kidneys are the only exact methods to decide which one of the kidneys is the better one.

5. Cases of this kind are considered cured if there is no more lowering of the freezing point of the urine.—(*Archiv. fuer Klinische Chirurgie*, Vol. 74, Part 4.)

Prostatectomy.—In the weakest and most run-down cases M. B. Tinker has employed permanent suprapubic drainage. This is rapidly performed under eucaïn, and he thinks it is the safest of all procedures. Except in absolutely desperate cases, he believes prostatectomy under local anesthesia is safe as compared with the operation under general anesthesia. The use of adrenalin with the ordinary local anesthesia greatly prolongs and adds to its efficiency, prevents the pain and congestion following, and renders the operation almost bloodless. The knowledge of the nervous anatomy of the parts is, of course, absolutely essential, and the course of the pudic nerve and the long pudendal nerve close to the base of the tuberosity of the ischium are important. He favors the use of Young's tractor, and recommends allowing sufficient time for the anesthetic to act before making the incision. With sensitive or nervous patients he finds it often better to use a little nitrous oxid gas or primary ether anesthesia, as the infiltrating solution can not reach the parts involved in the deeper enucleation. These parts, however, are supplied by the hypogastric plexus of the sympathetic and the discomfort is not necessarily great. He reports a case in which he thinks this method of operation was directly life saving.—(*The Journal of the American Medical Association*, February 11, 1903.)

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

Syphilis Acquired by Physicians.—Blaschko has observed 12 cases of syphilis among physicians, during the past ten years, all acquired in professional work.

The initial lesion, under such circumstances, generally occurs on the fingers and is frequently overlooked or misinterpreted. It is only from its chronicity and bluish infiltration that its true nature is suspected. In two of the cases there was a mixed streptococcic infection.

In considering the differential diagnosis of chancre of the finger, one must bear in mind that herpes is preceded by nerve pains and is at an end in about ten days. Chancroid readily clears up under carbolic acid or iodoform.

In most of the cases, the appearance of the general symptoms or the development of a bubo was the first sign which attracted attention. In one case, the primary sore was on the face; in another the point of entry of the virus was never determined.

The infection is generally acquired through erosions at the base of the nails, produced by the scrubbing brush and is usually received at operations on bubos, etc., or during confinements. The danger in the latter cases is particularly great in instances of abortion or premature birth, for these so often occur in syphilitic women. One case of the author's was acquired at a post-mortem examination on a syphilitic, performed 24 hours after death.

The writer emphasizes the necessity of every physician keeping in mind the possibility of acquiring syphilis in every case upon which he operates or which he examines bimanually. General practitioners often disregard this important possibility. Too little importance is laid on the scrubbing of the hands *after* operation. The author's method is to touch every little fissure with a 2 or 3 per cent. solution of silver nitrate and he advises rubber gloves to be worn for all gynecologic examinations, in the interest of both the patient and the physician.

Silver nitrate and bichloride of mercury will abort infection after it has taken place.

On one occasion, Blaschko scratched his finger while operating on a bubo. He immediately applied the electric needle and the next day touched the spot with the actual cautery. No symptoms resulted.

He knows of no instance where the disease was transmitted by the physician, whose family life suffers more than does his professional.—(*Berliner klin. Woch.*, Dec. 26, 1904.)

The Treatment of Haemorrhoids.—After giving a simple and satisfactory classification of hæmorrhoids, Gant says that the treatment, when intelligently carried out, is universally successful. The operative treatment is by far the most satisfactory.

The non-operative treatment is simple and consists in requiring the patient to remain in the recumbent position, restricting the diet to liquids and semisolids, giving laxatives, applying the ice bag and exhibiting astringent remedies to diminish the inflammation and swelling. If there be strangulation, pain and spasm of the sphincter, use hot water compresses and insert suppositories containing a quarter of a grain of morphine, eucaine or cocaine. If there be depleting hæmorrhage, insert a small plug of gauze, about the size of the little finger and three inches long, moistened by a 2 per cent. silver nitrate solution. 10 per cent. ichthyol or 50 per cent. balsam of Peru. In most cases the non-operative treatment is palliative and must sooner or later be followed by operation.

The operations most frequently practiced are (1) clamp and cautery, (2) ligature, (3) excision and (4) injection. All others are either obsolete or have met with slight favor.

Gant is partial to the clamp and cautery operation, especially when general anesthesia is employed. Either this or ligature, when properly performed, is invariably followed by satisfactory results. The Whitehead operation (excision) is severely condemned. Experience has convinced the author that, although cures are occasionally obtained by the injection method, it is in most cases unsatisfactory, because not permanent. Furthermore, it is dangerous.

Gant makes a strong plea for the office treatment of all uncomplicated cases. He has now discarded cocaine and eucaine and operates under local anesthesia, induced by distending the tissue with sterile water. There is thus no danger of poisoning, no bleeding at the operation and but little pain following.

In the thrombotic variety, the clot is turned out and the cavity packed; in the cutaneous, the pile is excised and the wound sutured or left to heal by granulation; in the internal, the clamp and cautery, ligation or linear incision methods are employed.

Gant has operated on more than 250 cases under sterile water anesthesia with the most gratifying results. These cases embraced every variety of pile tumor and effective radical treatment was rendered by this method so simple and easy that the author thinks that it should relegate to oblivion the much vaunted but uncertain and dangerous injection treatment.—(*New York Med. Jour.*, Jan. 7, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. F. WILSON, JR.

The Administration of Anti-streptococcic Serum. (CONCLUSIONS.)

1. That injection of anti-streptococcic serum in cases of pure streptococcal infection has been followed by strikingly beneficial results.

2. That variability in the results of the serum in proved streptococcal infection has been due to the selective activity displayed by the antitoxin of each variety of streptococcus or to the serum being used too late in the case or having lost its activity from staleness.

3. That more uniform results are likely to be obtained from the present "compound" anti-streptococcic serum than from the earlier forms, from the prompt injection of serum at the commencement instead of near the close of a severe infection, and from the use only of serum which has been recently prepared.

4. That the initial dose may with benefit be increased and that a large quantity spread over several days causes no ill effect.

5. That the administration of the serum should be continued for some days after the general symptoms have disappeared and a recrudescence thus avoided.—(WALKER, *The Lancet*, December 31, 1904.)

The Administration of Anti-streptococcic Serum.—The dose advised by Foulerton, at the commencement is at least 20 cubic centimeters, and one must be prepared to repeat this dose if necessary at least every 24 hours. He also says that if the serum is going to do any good at all the effects will be apparent at once, as the serum is antitoxic and not bactericidal, so that if in a case of streptococcic puerperal infection no improvement follows, two doses of 20 cubic centimeters administered within twelve hours, it is useless to persist in administering it, another brand of serum should at once be tried.—(*The Lancet*, December 31, 1904.)

Suprarenal Extract.—Meltzer and Auer give as the result of their experiments as a brief résumé the following:

1. Intravenous injections of suprarenal extract retard invariably the processes of absorption and transudation.

2. Subcutaneous injections also often show a retardation of these processes; the effect, however, is neither strong nor constant.

3. In the frog, the retardation of absorption of some substances was recognizable only when

suprarenal extract was previously mixed with that substance, or when both substances were injected into one and the same lymph sac.

4. It is assumed that the suprarenal extract increases the tonicity of the protoplasm surrounding the pores of the endothelia of the capillaries, thereby reducing the facility for the interchange between the blood and the tissue fluid.—(*The American Journal of the Medical Sciences*, January, 1905.)

Local Analgesia.—Barker reports 91 operations from abdominal sections in which the only anaesthetic employed was local. He says we must remember in using this method that cocaine applied to the trunk of a sensory or mixed nerve abolishes sensation throughout the whole distribution of the nerve and that if the circulation of a part was retarded by a ligature or the application of cold, the action of the analgesic compound injected into it was maintained and even intensified so long as the circulation was controlled or retarded. For the first point—knowledge of the distribution of the nervous supply of a part is essential, the second point is accomplished by the use of adrenalin. From fear of the toxic effects of cocaine, he uses B-eucaine, of which he has used as much as 6 grains at one time. The usual formula, however, is:

Distilled water	.....100.	or 3½ oz.
B-eucaine	.....2	or 3 grs.
Sodium chloride	.....8	or 12 grs.
1 pro. mille adrenalin chloride solution	.....	Mx.

All this quantity of fluid can be used in ordinary cases if necessary, and it is quite sufficient for most. But he has often used twice as much over large areas, and has seen no ill results from the six grains of eucaine or mxx of adrenalin.—(*The British Medical Journal*, December 24, 1904)

Tubercular Adenitis Treated by the X-ray.—CONCLUSIONS:

1. X-ray treatment offers the best cosmetic results.

2. The danger of secondary involvement or dissemination is lessened.

3. Suppurating glands should be incised and drained, and then subjected at once to X-ray treatment.

4. Cases should be treated as early as possible.—(PFAHLER, *Therapeutic Gazette*, January 15, 1905.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

The Melanoma Question.—Unna's theory of the origin of the soft naevus (mother mole) from surface epithelium by a metaplastic change in the rete cells and their gradual descent into the cutis in intrauterine or early life has been gradually gaining supporters since its first promulgation in 1893. These adherents to his views hail from many lands, and are both general histopathologists, and those whose special work lies in the skin. The older view, of a genesis from lymphatic endothelium, is maintained with some heat chiefly by German general pathologists. In the monograph, the first installment of which appears in this issue of the *Journal of Cutaneous Diseases*, the author, James C. Johnston, instructor in pathology and chief of clinic, department of dermatology, Cornell University Medical School, joins forces with the latter school and offers some data illustrated as to crucial points by photographs, tending to show that naevus cells are endothelial, and that the malignant growth called by Unna "melanocarcinoma," being a derivative of the soft mole, is also of endothelial origin. The main point in his argument, following Hansemann, is a demonstration of a continuity of structure between groups of naevus cells and the superficial plexus of lymphatic vessels in the skin. He maintains that this demonstration should be convincing when it can be made, but adds some corroborative testimony from the histology of the mole.

Passing from the question of histogenesis of moles, the history and histology of nine cases of malignant melanotic tumor are given, which are classed under one head, Melanoendothelioma, and further subdivided into Naevomelanoma, Melanotic Whitlow, of Hutchinson, and Malignant Lentigo of the French. Although the tissue origin is the same for them all, from lymphatic endothelium, the latter two, which are often neglected in literature, begin like choroid melanoma without the interposition of any naevoid structure. They have one clinical feature in common which does not occur in naevomelanoma, pigmented lines running irregularly from the original neoplasm and called "nitrate of silver streaks." All three are equally malignant. Melanotic onychia begins always in one nail fold; malignant lentigo on the extremities, generally in old men.

Differing radically from the Unna school in his interpretation of naevus structure, Johnston calls attention to certain cutaneous melanotic tumors which are known to possess only local malignancy like rodent ulcer, and describes three cases which are epitheliomata of well recognized varieties with an added pigmentation varying

greatly in amount. Similar cases have been reported in support of Unna's contention in regard to naevus, but in reality they have no bearing on the controversy since no trace of mole tumor can be found in them, and Unna himself denies their existence. Owing to the melanosis, diagnosis of melanoepithelioma is possible only by the microscope.

Lastly, several cases are offered in proof of the statement that early and radical excision offers some hope of cure even in the most malignant of melanoendotheliomata.—(*Journal of Cutaneous Diseases*, January, 1905.)

The Sack Treatment of Syphilis.—Major Pollock, R. A. M. C., describing the methods of treatment of syphilis as recently observed in some of the leading Dermatological Cliniques on the continent of Europe, writes of the plan in vogue in Stockholm as follows:

The most interesting feature here was Weland's "sack" treatment. As soon as he had diagnosed syphilis, he gave three or four injections of his "mercurial oil" in order to get the patient rapidly under the influence of mercury; the remainder of the course was then carried out by means of his sack treatment. In the case of an adult this was applied as follows: A cotton bag was made sufficiently large to cover the whole front of the chest, the upper end being left open. Each morning this bag was turned inside out and ten grammes of the unguentum cinereum (containing about fifty-three grains of metallic mercury) was rubbed into the side of the bag which was to be worn next to the skin; the bag was then turned back again and the patient wore it for the following twenty-four hours. This treatment was carried out for forty to sixty days, and was repeated at subsequent intervals just as in the case of courses by inunction or injection. For infants suffering from congenital syphilis one gramme was rubbed in daily. For pregnant women and infants suffering from syphilis, and for whom a course of mercury is essential, the method seemed especially suitable.

Taking a general view of syphilis and its treatment in all places which he visited on the continent, the one great feature which made the most impression on him was that syphilis, and, in fact, all venereal diseases, were regarded as diseases worthy of serious consideration and entitled to proper treatment, and not as evidences of crime or vice. Everywhere ample provision was made for treating cases in an infective state *in hospital*. The wisdom of this from the point of view of the general health of the community cannot be denied.—(*The British Journal of Dermatology*, January, 1905.)

DISEASES OF THE NERVOUS SYSTEM.

Under the Charge of

GUY L. CONNOR.

A New Reflex; Gordon's Paradoxic Flexor Reflex.—This reflex is elicited in the following manner. The patient is seated with his feet on a stool. The examiner, who is always on the outer side of the tibia, places his thenar and hypothenar on the inner side of the tibia, and exercises deep pressure with the fingers on the calf muscles (the pressure must be deep in order to be transmitted to the flexor muscles). The great toe or all the toes then extend.

The paradoxic flexor reflex is a sign pointing to an involvement of the motor tract. It is not found in patients suffering from organic diseases of the other portions of the cerebro-spinal system, paralysis agitans, hysteria or in normal persons.

The value of this new reflex is particularly appreciated in those obscure cases in which Babinski's sign (which gives extension of the toes by irritating the skin of the soles of the foot) is either absent or very slightly marked and a diagnosis of organic disease is in doubt.

McCarthy believes that Gordon's reflex is a new method of bringing out Oppenheim's reflex (stroking firmly along the inner border of the tibia). Others, Mills and Dercum, claim it is a new reflex and does not resemble at all Oppenheim's reflex. Spiller suggests that it would be well to determine in what proportion of cases the extension of the toes as obtained by Oppenheim's method is associated with extension of the toes as obtained by Gordon's method.—(*The Journal of Nervous and Mental Disease*, February, 1905).

Paralysis of the Abdominal Muscles in Acute Anterior Poliomyelitis of Infants.—In looking over the literature on the subject, so few cases have been found that we are justified in concluding that residual paralysis of the abdominal muscles in acute anterior poliomyelitis of infants is rare. Initial paralysis of these muscles in poliomyelitis may not be as rare an occurrence as statistics would show. It is possible that many cases showing involvement of the abdominal muscles are overlooked, first because it is a matter of common record that paralysis at the onset is more widespread than at any subsequent time, and second because of deficient observation, due partly to the carelessness of the

physician, but more especially to the fact that these cases of poliomyelitis are not seen by the doctor for some days or even weeks after the onset of the trouble.

In the large number of cases of acute anterior poliomyelitis seen at Johns Hopkins Hospital dispensary, the following is the only one showing a residual paralysis of the abdominal muscles. Isaac H., Russian Jew, age 21 months. Family history is negative. Child was said to be healthy until present attack. Two weeks previous, child had an attack of fever lasting three days. During this time the child slept almost continually. Afterwards it was noticed that the infant could not sit or stand and that the right leg and left arm were paralyzed. Within three weeks the movements had returned to both affected members, the hand to less degree. Within five weeks from onset of the attack the child could walk, using both arm and leg fairly well. No note was made on the condition of the abdomen prior to nine weeks after the onset of the fever. There must have been asymmetry from the first which became more apparent as the muscles grew more flaccid and atrophic.

Abdominal examination showed the following: Relative hepatic dullness begins 3 cm above the costal margin and extends 8 cm downward in the nipple line. Spleen is palpable. Palpation and percussion are otherwise negative. In dorsal decubitus the abdomen is full, but is more prominent on the right. Abdominal skin reflex is present on the left, absent on the right. Umbilicus is in mid-line. As child cries and raises the intra-abdominal pressure, the right side balloons out very markedly. On palpation the muscles may be felt to contract under the hand on the left but not on the right. In the erect position the asymmetry is much more evident and as the child cries, the right side balloons out to the full limit of the flaccid and paralyzed wall. There is no lordosis, but there is a slight scoliosis in lumbar region with convexity to right.

The paralyzed muscles are the obliqui, transversalis and half of the rectus on the right.—WM. B. CORNELL, *Johns Hopkins Hospital Bulletin*, January, 1905).

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Original Articles

PYLORIC STENOSIS—GASTRO-ENTEROSTOMY—WITH REPORT OF CASE.*

GEORGE RAYNALE,
Birmingham.

This case I wish to report because of the remarkably good result following gastro-enterostomy for the relief of complete pyloric stenosis, performed by a modification of the well-known McGraw elastic ligature method as suggested by Dr. Angus McLean. It is, so far as I can learn, the first case in which this operation has been performed upon a human being.

Mr. R——, aged thirty-one years; father died from epithelioma of the tongue; mother living, in good health; father's sister had what was termed a cancer of the forehead, which was removed by some sort of local application. His occupation is that of a mechanic and he was on the railroad several years, being at that time very irregular with his meals. To that cause he attributes the numerous attacks of dyspepsia, from which he has suffered eight or nine years.

Five years ago he had typhoid fever, through which he was attended by my father, Dr. C. M. Raynale, who has

treated him through the greater part of his sickness. He made a good recovery and was in good health during the five months following this. In May, 1900, he had another attack of his old stomach trouble lasting two or three weeks, and during the summer months of that year had a series of similar attacks in which he suffered great pain in the stomach and vomited considerably, but no blood; in fact he has at no time vomited blood, recognizable as such. In January, 1902, he had an attack diagnosed as colo-cystitis. He became jaundiced and suffered great pain, temperature reaching as high as 104°. The passage of gall stone was, of course, considered possible, but none were found in stools. This attack lasted about two weeks, following which the stomach symptoms changed in character. For weeks at a time there would be almost constant pain over the epigastrium, which was relieved somewhat by pressure and aggravated by taking food, frequent vomiting of partially digested food; stomach extremely sour; marked constipation and loss of flesh. Notwithstanding this, he kept at work.

*Read at the first annual meeting of the First Councilor District Medical Society, Detroit, February 20, 1905.

In September, 1903, there was a marked increase of the symptoms so that he was obliged to go to bed. He could retain food no longer than thirty hours, when it would be vomited, only slightly digested. This lasted about six weeks, when he recovered sufficiently to resume work.

I first saw him with my father, last November. At that time he was suffering

marked induration at pylorus, over which tenderness on pressure was extreme; stomach was somewhat dilated.

Finally, during the three weeks previous to operation, he became disgusted with dieting and ate almost anything he happened to fancy—even griddle cakes. It seemed to make no difference with vomiting, which now occurred at intervals of

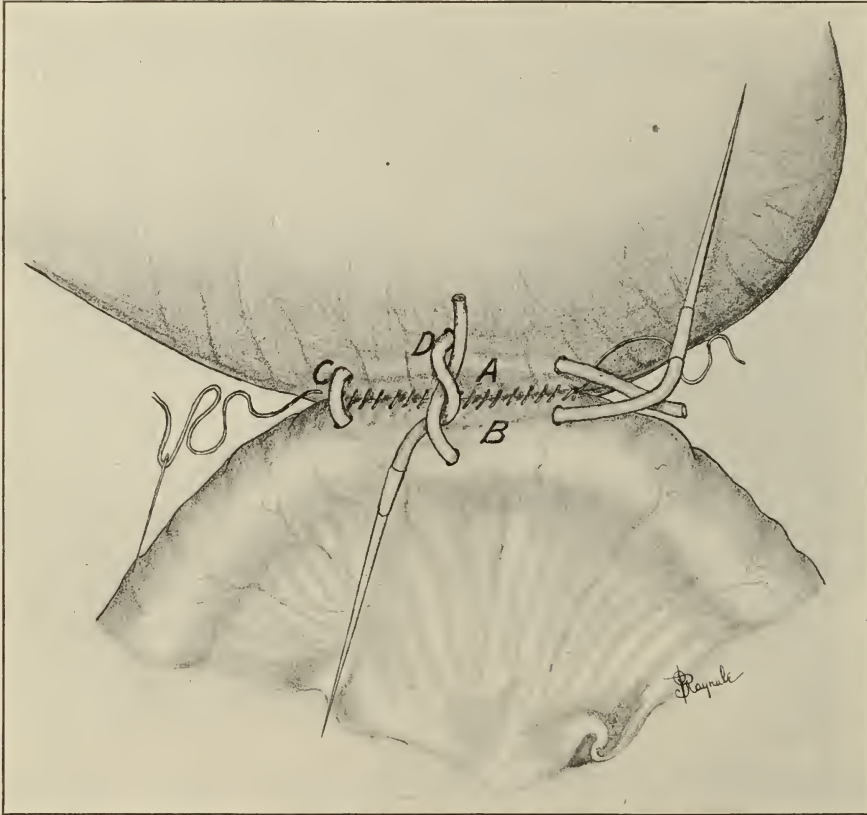


FIG. 1.—A, lower portion of stomach; B, loop of intestine; C, longitudinal rubber ligature; D, cross ligature.

a great deal of pain, with frequent vomiting, the vomitus, as usual, being extremely acid and containing some undigested food. There was a slight evening rise of temperature. All the old remedies which had previously given him relief failed to do so now and lavage was employed, but with no benefit. Palpation revealed a very

two or three days, when he vomited three or four quarts, in fact, everything that had been taken into the stomach. After the stomach was emptied he would be relieved almost entirely for about twenty-four hours, when the pain would return, continuing until the recurrence of vomiting. There would be a slight evacuation

of the bowels about every other day, but only after the employment of enema. A diagnosis was made of cicatricial pyloric stenosis as a sequence of gastric ulcer, and operation advised. Of course, cancer was suspected, but chemical analysis of test breakfast practically eliminated this, there being present a great excess of hydrochloric acid. He finally consented to an operation, entered Harper Hospital Dec. 15th and I operated upon him Dec. 22nd.

OPERATION.

Beginning just below the ensiform tip, an incision was made about two inches long. Examination of the gall bladder and ducts was first made, but failed to show any signs of trouble, there being even no adhesions present. The stomach was then examined and found to be somewhat dilated. At the pylorus was a dense mass of cicatricial tissue completely obstructing the opening. No glandular involvement was found. We decided to perform a gastro-enterostomy.

First, a point on the duodenum about eleven inches from the pylorus was selected, brought up and sutured with silk in the usual manner, to the lowest possible point on the anterior surface of the stomach. Second, the McGraw ligature was introduced, taking up about two and one-half inches in the bite. Third, another elastic ligature was introduced at right angles to and entirely around the original parallel ligature, in the manner recommended by Dr. Angus McLean, taking up about one and one-fourth inches in the bite of both stomach and intestine (Fig. 1). Fourth, the two were tied as tightly as possible, the parallel first, the transverse second. Fifth, the silk suture was continued around the whole in the ordinary manner.

This method gives a larger opening than the one made by the original operation, making in reality a rectangular opening encroached upon by four flaps, which probably act as valves, having a tendency to prevent the regurgitation of bile into the stomach (Fig. 2.) The original oper-

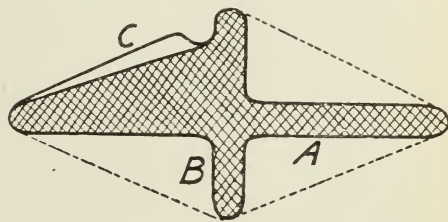


FIG. 2.—Showing shape of opening after ligature cut through, by McLean method. A, longitudinal fissure; B cross fissure; C, flap everted.

ation has been unfavorably criticised by some eastern writers, it being claimed that the opening is frequently closed by muscular action of the stomach. I do not see how any muscular action of the stomach can close the opening made by this method.

The patient took liquid food the second day after the operation and has vomited but once since. This occurred about a week after operation was performed, and in my opinion was caused by taking some beef peptonoids which was extremely repulsive to him, and caused some nausea at the time it was administered. Ten days after operation he sat up in a wheel chair and walked about the hall in twelve days, returning home on the fourteenth day; since which time he eats almost anything without ill effects, and his sour stomach has entirely cleared up. His weight was one hundred and twenty pounds at the time he left the hospital. He now weighs one hundred and seventy pounds, having gained thirty pounds the first two weeks.

REMOVAL OF THE SECOND AND THIRD DIVISIONS
OF THE FIFTH NERVE.*WILLIAM FULLER,
Grand Rapids.

Persistent neuralgia of any branch, division or whole of the fifth nerve, which has resisted all other remedies, justifies an operation for the relief of the patient.

Operation upon individual branches is proper in cases in which the pain is confined to one branch of the nerve only, but usually in these an operation affords only a temporary respite.

Disease involving the whole nerve indicates a defection within the cranium, perhaps of the Gasserian ganglion, the removal of which is a difficult and dangerous operation.

Disease involving several or all the branches of one division of the nerve calls for the removal of that division, which can be done best and with the greatest ease by grasping the main trunk at its emergence from the skull and pulling it out of the Gasserian ganglion by traction with a forceps. This procedure applies to the second and third divisions, which are those most frequently affected and with which no important structures are associated at their exits, respectively, the foramina rotundum and ovale of either side.

It is to operations upon the trunks of these divisions of the nerve to which I will confine my remarks in this paper, since for anatomical reasons the same treatment could not be applied to the first division.

I have twice removed each of the second and third divisions with very gratifying results in all the patients, who have remained well up to the present time, after a period of one and two years. The relief from pain was immediate, recovery rapid, each of the four patients remaining in the hospital one week.

The resulting facial deformity after complete recovery was scarcely perceptible to the casual observer. The ages of the patients ranged from 50 to 65 years, and their sufferings extended over periods of from 8 to 17 years. One had, previously, by other surgeons, been operated upon for removal of the inferior dental nerve, with but a short respite each time.

In each of these cases the pains radiated into all the branches of the divisions affected.

The operation upon the second division consisted of a vertical incision over the infra-orbital nerve, from the lower border of the orbit to the reflection of the labial mucous membrane, being careful not to open the buccal cavity, isolating and securing the extremity of the infra-orbital nerve, breaking into the cavity of the antrum and through its posterior wall into the pterygo-maxillary fossa, removing the infra-orbital nerve from its bony canal and tracing it to the foramen rotundum so as to include the entire trunk of the nerve at its exit, grasping it by a forceps and pulling it out of the canal by steady traction.

By careful dissection the naso-palatine nerve and Meckels ganglion were easily removed. The periosteum was thoroughly

*Read before the Section on Surgery, Ophthalmology and Otology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 25, 1904, and approved for publication by the Committee on Publication of the Council.

scraped from the walls of the foramen. Care should be taken not to wound the terminus of the int. max. artery, which in this situation is much larger when distended than one would expect. It is situated low down in the fossa and can be easily seen.

There is troublesome hemorrhage which renders the operation tedious.

The antrum was temporarily stuffed with iodiform gauze at the close of the operation.

The operation upon the third trunk was as follows:

An incision was made along the entire upper border of the zygoma, avoiding the temporal artery posteriorly, and extending downward, anteriorly, for three-quarters of an inch over the malar bone, escaping the branches of the facial to the orbicularis muscle. The zygoma was divided with a bone forceps at each extremity, the arch and masseter muscle forcibly pushed downward, exposing the attachment of the temporal muscle to the coronoid process, which, later, was removed from the inferior maxilla as low down as possible, and together with the muscle divided sufficiently to expose the external pterygoid, the upper or cranial attachment of which was also removed.

The nerves and int. max. artery were exposed. The latter may be cut and tied if in the way. The nerves were traced to the foramen ovale, which is midway between the pterygoid process and the eminentia articularis, the broad groove between them leading directly to the opening. The periosteum was carefully removed from around the foramen, the trunk of the nerve grasped and pulled out as in the former case except that no portion of the nerve was excised, but a pair of forceps was left attached and the trunk pulled a

distance from the opening and left a few days in this position until the foramen was closed. The reason for this was the difficulty of removing all of the branches as in the former case.

One caution—The middle meningeal artery lies just behind and external to the trunk of the nerve.

The division of the muscles is of no consequence, since the nerve supply is destroyed.

The operation was completed by replacing the zygoma, which was secured in position by a stitch at each end, but is not liable to displacement.

The operation requires patience on account of hemorrhage obscuring the field of operation, which is deep and narrow.

The facial deformity is less than that produced by the operation previously described.

The removal of the Gasserian ganglion had been recommended in each of these cases, but I am of the opinion that the operations just described have proved equally efficient, easier to perform and entirely devoid of danger to the patient.

Since the above was written I have operated twice upon the second division and once upon the third division, making seven cases in all with equally satisfactory results.

Bile Duct Disease.—1. Remove stones; for if left behind they are very sure to cause subsequent disturbances, and we know conversely that after the thorough removal of stones their recurrence is almost unknown.

2. Remove so far as possible all disorganized, degenerated and permanently crippled tissue; for we have seen how such tissue, when left behind, may become the nidus for subsequent inflammation, stone formation and a return to the invalid condition.

3. Drain, for without drainage we have no certainty of the removal of infectious material.—(J. G. MUMFORD, *The Boston Medical and Surgical Journal*, March 2, 1905.)

APPENDICITIS, WITH ESPECIAL REFERENCE TO THE
SOCALLED CONSERVATIVE TREATMENT.*J. H. CARSTENS,
Detroit.

As appendicitis manifests itself in so many different ways and types of severity, conservatism is still going on. If the disease would not have a series of different symptoms, and run a definite course there would be no such trouble. But it varies so much and its course is so treacherous, that we never can make a positive prognosis, and hence there is continual controversy going on between the so-called conservative and radical members of the profession. As you have had a paper on the symptoms and diagnosis, it is not necessary for me to dwell on that aspect of the disease.

We all know that there are many mild cases that recover in a few days, and, in fact, without any treatment. There are others of a more severe type, where it takes a week or ten days for the patient to recover; perhaps recurring every six months. In both of these kind of cases simple treatment generally brings relief. But then we have a severe type which goes from bad to worse, ulceration of more or less of the appendix, rupturing into the peritoneal cavity; this may occur within twelve or twenty-four hours. It may occur during the first attack or it may have been preceded by one or more of the mild ones. These are the kind of cases that require surgical operation. The most conservative agree to this plan of treatment. Even conservatives who have treated cases of the mild type successfully,

think that the case should be operated on when there is no question about the formation of pus, while the radical surgeon insists that they should be operated upon promptly, if possible, before rupture has taken place or the peritoneal cavity infected.

At this stage Oschner steps in with his so-called starvation plan of treatment, and states that in this severe type the bowels should be put at rest; that by starving the patient and washing out the stomach, feeding by rectum, if necessary, the peristaltic action of the bowels will stop, even if rupture has taken place, the disease will be limited to the cecal region and be there walled in. And that when this is firmly established in the course of a few days or a week an operation can be more safely performed.

The trouble with Oschner's treatment is simply this: He has never been thoroughly understood by many general practitioners. First of all, his treatment is not carried out perfectly. The one or the other form of treatment is tried and the result is a complete failure. If there is any merit in the treatment it must be carried out *perfectly*. The stomach must be washed out and emptied of noxious material, and then kept so, and the starvation must be *absolute*. Now those general practitioners who thoroughly comprehend that form of treatment and try to carry it out, well know that their directions are not carried out by the ignorant patient and the friends of the family. They are allowed to drink water or even milk (the worst of all) be-

*Read at the first annual meeting of the First Councilor District Medical Society, Detroit, February 20, 1905.

cause that is no food. They say the patient asks for something to drink and they give it, and then trouble begins.

The point I want to make is that this form of treatment can only be carried out in a hospital or where the patient is under absolute control of a trained nurse, in fact, it requires two trained nurses, as one cannot be with the patient all the time.

The second point I want to make is that this is not a *treatment* at all. It is only a preparation for treatment. The ultra conservative members of the profession consider this a treatment. The patient recovers, having the appendix ruptured with a puddle of pus, perhaps back of the cecum carefully walled in. The patient feels all right and walks about. In a little while some of the adhesions break and trouble starts again. The so-called conservative treatment which has been so good in the first place is repeated and so it goes on. The patient is suffering from mild sepsis with repeated attacks and is more or less incapacitated from work and then a sudden explosion occurs. A big rent is made in the adhesions, general peritonitis starts up and then the surgeon is called when the patient is *in articulo mortis*. The surgeon operates and the patient dies. The surgeon gets the black eye and the danger of the operation is called attention to.

The conservative physician who treats one patient, perhaps, six to ten times and the patient has always recovered, and then has half a dozen of that kind, naturally calls attention to the fact that he has had fifty or sixty cases, that he safely carried through the attack with his calomel, his castor oil, or starvation method of treatment, and not a patient has died, but the two or three patients that he has turned over to the surgeon have all died, ergo,

the conservative method of treatment is the correct one

It is hardly necessary to state that I believe that the *only* conservative method or treatment is to remove the appendix at the earliest possible moment. In every case operated on the first twenty-four hours the mortality would not be one-half per cent. The patient would be saved untold misery and anxiety and restored to permanent usefulness in a few weeks.

However, there are certain severe cases where the shock of the initial pain is so great that there is a very rapid pulse and the cardiac action is too weak.

There are cases where the environments of the patient is bad, where expert surgeons are not at hand.

There are cases who have had attacks with a well walled suppurating appendix, which has suddenly ruptured, producing intense peritonitis and where we know that the patient is almost sure to die if an operation is performed. In all these kind of cases it seems to me best to wait for a day or two.

In such cases, it seems to me, the so-called starvation plan of treatment is indicated, but it is not a treatment, it is simply a *preparation for treatment*. The real treatment is the removal of the diseased appendix. Oschner does not claim it is a treatment. He has been misunderstood. He allows no appendix to escape, he removes them all. He simply starves the patient for a few days, those cases in which he thinks it is indicated, and then removes the appendix.

In mild cases if the appendix is not removed during the first attack the patient will not submit to an operation during the interval, which is pretty natural, and when the second attack comes the patient thinks he got over the first attack so

nically that the second will also pass over, and with the third and the fourth it is the same old story. The trouble is, that they are often encouraged by their physician with the statement that he may never have another, which is true in perhaps fifteen per cent. of cases.

I am even told that patients will not submit to an operation. This may be true in rare instances, but I have seen so many cases where I have been told over and over again that the patient will not submit to an operation. I should not talk operation to the patient. If I speak to them, in five minutes the patient is willing to

submit to an operation. You have simply got to put it to them in the right way. If you talk operation with a tremble on your lip, if you are afraid yourself that the patient might die, of course they see it in a flash, and will not submit, and I do not blame them.

In conclusion, I would say, that no patient with appendicular trouble is safe until the affected organ is removed

That under certain conditions the so-called conservative treatment is proper to *prepare* the patient for the only *real* conservative kind of treatment, and that is, the *removal of the appendix*.

REPORT OF A CASE OF EXTRA UTERINE PREGNANCY.*

GEORGE C. HAFFORD,
Albion.

If we look up in the later text books, we find but little consideration is given to that form of abdominal pregnancy which exists after rupture of an ectopic pregnancy and the development of the child in the abdominal cavity till of a viable age.

Among the older writers it is treated as a mystery and a great curiosity and many cases are reported where the foetus at different periods of its existence has been discarded from every conceivable part of its mother's anatomy, indifferent conditions, or found after years of environment in the mother's abdomen.

In the later works, on the other hand, the subject of ovarian, tubal, or by its later and better name, ectopic gestation, has been, and is being, very carefully studied and the pathology and diagnosis being carefully worked out have indicated the proper treatment, early operation if diagnosis has been made.

For these reasons it seems very probable, that the cases under consideration—where the child has passed to a viable age, will continue to grow less. In the future, opinion will class as malpractice the deferring, from lack of diagnosis or otherwise, operations on these cases after the early months or even weeks. In many cases, there is no doubt that the mother's life is in such great danger that early operative interference is imperative. There may, however, happen cases which are ad-

*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 26, 1904, and approved for publication by the Committee on Publication of the Council.

vanced beyond the imperative danger line and where to wait may give a reasonable chance for a viable child and with modern surgery but little more risk for the mother.

Because these cases are rare, I desire to place on record the following one without taking up the time of the section in any consideration of pathology or other points which have been well worked in the section before, and to leave all points to be brought out in discussion which the section may desire.

Mrs. E. G., American, age 34; married 13 years; husband healthy; mother of one boy 9 years old; child is very well mentally but has had poliomyelitis, which has left the lower extremities practically helpless. Patient has always been well, and is a large, robust woman; claims she has never been pregnant since the birth of the boy, but is always regular in menstruating.

About December 20, 1902, she was, during her menstrual week, taken with severe uterine hemorrhage lasting nearly two weeks. Objection was made to digital examination, but diagnosis was probable abortion. She apparently recovered and against advice attended a ball at New Year's. This was followed by more hemorrhage and great prostration. During this illness I was away and she was attended by a colleague, and for sometime after my return. On January 29, 1903, I again saw the case in consultation, and on February 3, 1903, again took charge.

The report of the physician during my absence was that large masses of placental tissue had come away, but no one had at any time seen what might be a foetus.

From this time on to about the middle of March she had slight fever and repeated attacks of faintness, great prostration, no flowing, a large mass across the lower

part of pelvis, uterus fixed and not discernable from the mass. Abdomen very tender, stomach very irritable. After three or four weeks of this condition with repeated spells of weakness, almost fainting, the spells became farther apart, the pelvic mass grew less and she gained nicely in appetite, flesh, color and spirits. Went out almost daily.

At different consultations in March, ectopic pregnancy was considered but the diagnosis and operation rather discouraged by counsel and patient was so low that it seemed impossible. April examination showed mass was becoming larger, menstruation had not come on, mass was seemingly most to right side. Now the diagnosis seemed between extra uterine and possibly normal pregnancy.

No sure foetal movements could be made out. Three weeks later palpation seemed to give form of child five or six months old, but no certain movements. Mass in left side was not well defined, placental souffle was thought to be present but no foetal heart beat could be made out.

On May 4th, irregular pains came on, with slight flow, and finally expelling of decidual masses. Examination showed os partly open and crowded up under the pubic bone, former conditions unchanged. Diagnosis: Extra uterine pregnancy, child in right and placental attachments in left pelvic fossa.

Operation May 5th at 10:30 A. M., under chloroform, assisted by Drs. Abbott, Marsh and Herzer.

Abdomen opened in medium line, showed uterus size of cocoanut, reaching half way to umbilicus. Extensive adhesions to top and posterior and to left side of placental attachments.

Amnionic sac posterior and to right of uterus. Right tube and ovary free; left

included in placental attachments. Opening enlarged to 8 inches; sac ruptured, living child rapidly extracted by feet, cord clamped and cut, hemorrhage was rather excessive, but large mass of gauze was rapidly passed down and sac tamponed and all bleeding surfaces possible controlled by pressure. No attempt to remove placenta, wound closed at upper and lower part but about 3 inches where gauze protruded.

Child breathed about one-half hour; no attempt to resuscitate it; weighed $2\frac{1}{2}$ pounds, 13 inches in length, fairly well formed, eyes not open, hip joints rather stiff and would not fully extend; may have been from cramped position.

During operation, hypo. of fluid ergot and strychnine adrenalin and saline solution were freely given.

Patient reacted well, but slight shock.

Temperature remained practically normal till about the fourth or fifth day, when it would occasionally get to 101° F. There was some bowel obstruction, much gas, but moved freely after calomel on the fourth day. There was very much colicky pain and large knuckles of intestine would protrude from opening. When unable to move the gas by massage, it was aspirated from the bowel by hypodermic needle. The gauze was slowly removed and the placental tissue discharged slowly in shreds or was wiped out through the opening with sterile gauze sponges. There was irritability of stomach and nutrition was by rectum. Stomach was often washed out, always with great relief. Not till the fourteenth day did the piece of ligature which was used to tie the cord come away. On the sixteenth day quite a large piece of decidua came from the uterus. By the twentieth day a rectal abscess had developed and was

opened, and for a few days discharged pus and fecal matter. It was expected that this would require later interference, but it healed completely.

Condition of patient continued about the same until the fortieth day. Temperature varied from normal to 101° , coming up only when pain was severe. Its highest point was 103° , reached on the twenty-seventh day; from the fortieth day it was normal, and on that day she sat up 15 minutes.

The pains were of a colicky nature, pulse was usually very weak and least exertion caused faintness. After the rectal fistula developed (which closed about the thirtieth day) she took nourishment by mouth and a fair amount of it. The uterine discharge continued at times a bright red, but usually a dirty brownish slightly purulent. On account of the extreme weakness and the evident slight amount of sepsis the uterus was not curetted, but I contented myself with bichloride douches. The abdominal fistula closed gradually and the cavity diminished slowly. It was kept carefully cleansed by bichloride and peroxide douches and wiped out with soft sponges. Finally finding it impossible to keep it open a drainage down through the posterior cul-de-sac was established and kept open for a week with gauze packing, the abdominal one being allowed to close, which it did perfectly. She gained strength slowly, bowels moved regularly without pain, digestion was good, appetite excellent. She wore for about a year an abdominal supporter. She is now in most robust health, weighs more than ever before, menstruates regularly, and there is, strange to say, no abdominal hernia.

In writing these notes, I am struck particularly by the little that seems to have

been done during the long days of severe illness following the operation. I have not mentioned the medical treatment, which was varied as seemed best, but was generally stimulants and supportives. It is an easy matter to criticise, and as I write this it seems as if something more might have been done. But I feel sure if I were to go through the case again I could not better it much. The rectal abscess was caused by the rectal tube; it had nothing to do with the abdominal infection.

The matter of dealing with the placenta is, I believe, the most important part of the technique. I have wondered whether

the whole thing might not be closed in the abdomen and left to absorption if one could be sure of non-infection and could get pressure in the sac to prevent hemorrhage. It would seem that a dull curette might have been used to advantage in the uterus, but it did not seem wise at the time as sepsis seemed so slight and patient was so weak and in so much pain. The pain seemed always caused by gas and partial obstruction of bowel, and I rather expected to have to operate again to remove obstruction, but as wound grew less and finally healed, pain grew less, gas passed more freely and bowels moved freely.

NOTE—March, 1905—Patient has continued to improve and is in the best of health in every way. G. C. H.

OPERATION FOR THE REMOVAL OF TRIANGULAR DEPRESSED FRACTURE OF LEFT PARIETAL BONE, UPPER MIDDLE BORDER—RECOVERY.*

W. E. CHAPMAN,
Cheboygan.

On December 31st, 1902, was called out in the country seventeen miles to see a patient suffering from injury to the head.

Personal History. J. M., age 31 years, a farmer by occupation, father living, age sixty-seven, good health. Mother died in 1901, age sixty-two, after suffering thirty years from epilepsy. One brother and two sisters living, in good health, one brother killed in saw-mill some years ago. Never had any serious injury nor illness except those of childhood.

Patient was struck on the head by a falling limb on December 23rd, about six o'clock A. M. A doctor from a small town near by was called and diagnosed concussion of the brain, had the patient removed to the village, where he remained under the doctor's care till I saw him December 31st. The only treatment patient had received was small doses of potassium iodide, strychnine sulphate for the weakness of heart and calomel to move the bowels.

Physical Examination. Patient's head was shaved and a large swelling found on the left parietal region, well back. The skin was not broken and only a very slight amount of discoloration noticed. The enlargement was about eight c. m. in diameter, the edge hard and infiltrated, while a small area in the center was some-

*Read before the Section on Surgery, Ophthalmology and Otology at the annual meeting of the Michigan State Medical Society, at Grand Rapids, May 25, 1904, and approved for publication by the Committee on Publication of the Council.

what softer. After palpating for some time slight crepitations could be elicited over a very small area. From the supra-orbital ridge to the clavicle on same side ecchymosis was very pronounced. The eyeball and conjunctiva were very much infiltrated and at the time I thought the patient to be blind in the eye, pupil was dilated and reacted to light very slowly, both knee reflexed were absent. There was slight impairment of motions in left arm and right leg. Facial muscles of expression and tongue were normal. Patient's mental condition was very dull and much depressed, and seemed to be in a comatose condition from which he could not be aroused. Would not ask for food or water but would take either when offered. Would not ask or answer questions, but would get up and get the closet to pass urine or when desiring to stool. At times talked incoherently.

The only positive signs of fracture, therefore, being the slight crepitations felt. Following the rule, however, laid down by Park that a case admitting of serious doubt would be safer, if operated on than without an operation, I advised operation and the patient was prepared. The head was thoroughly scrubbed with nail brush and tincture green soap and the entire head covered with a wet dressing of bichloride of mercury (1-1000) over night. The next morning this was removed and the head again scrubbed with tincture green soap, this washed off with ether and again washed in bichloride solution of mercury (1-2000). Patient was given an hypodermatic of strychnine and chloroform was administered; respiration was bad, patient became cyanosed and respirations Cheyne-Stokes and the anesthetic was changed to ether. Patient did some better but respiration was not normal.

The instruments were all boiled for fifteen minutes in solutions of soda and placed in a solution of carbolic acid 10 per cent. The hands of myself and Dr. Marks, who assisted, were scrubbed with tincture green soap, this washed off with ether and then rinsed in 5 per cent. solution of carbolic acid.

A large horse shoe flap about 10 c. m. in diameter with the base over the left ear was dissected up and the skull exposed. In the center of this swelling that appeared on the head was a large clot of blood and some necrosed tissue, and under this a triangular piece of skull $2\frac{1}{2} \times 2\frac{1}{3} \times 3$ c. m. in diameter and 4 m. m. in thickness depressed a trifle more than the thickness of the bone. On the forward angle and resting on the edge of the parietal bone was a small triangular piece of bone 1 c. m. at the base and $\frac{3}{4}$ c. m. on either side. This undoubtedly was the piece that gave the crepitation. The larger piece was broken through the dura and there was some loss of brain substance. The clotted blood and necrosed tissue was cleaned out, the hemorrhage checked with hot water and the cavity washed with normal salt solution. On further examination a linear extension of the fracture was found running forward and upward, i. e., toward the median line. This extended for some distance, and the upper portion was depressed the thickness of the bone. The bones were put in position as nearly as possible and the wound closed up. A small piece of iodoform gauze drainage was left in twenty-four hours and then removed. Dry dressing of equal parts iodoform and boric acid dusted over wound, iodoform gauze and absorbent cotton and large roller bandage completed the dressing. Healing of the wound was uneventful, the flap uniting in three

or four weeks. The patient, however, showed no marked signs of improvement for ten days after the operation, and, in fact, did very badly, temperature about 101° F, pulse 98-105, respiration shallow and variable with the mental and physical condition about the same as prior to the operation.

About January 20th the patient began to show some signs of improvement, both mental and physical, would answer questions and ask for things he wanted. About this time the paralysis of right leg and left arm began to be noticeable, and also the blindness of left eye. The paralysis of arm was more pronounced below the elbow and fine motions of the fingers were entirely lacking, tactile sensation was also very greatly diminished over the same areas that were paralyzed.

At first patient was unable to count, read or name any article, and was very irritable and had violent fits of temper. This, however, gradually disappeared and he rapidly learned to read and count. Now after about seventeen months patient complains of blindness of nasal side of left eye, inability to use fingers of left hand for fine movements and to speak some words, especially when excited, and there has been very little improvement during the last six months.

In removing the fractured and manipulating the depressed parietal bone, care was taken to injure the brain as little as possible in the vertical direction in order to confine the resulting paralysis to as small an area as possible.

A CASE OF EPITHELIOMA OF THE VULVA*.

A. P. REED,
Ann Arbor.

Primary epithelioma of the vulva occurs rarely, yet its early recognition and treatment are of great importance. A year ago Dr. Peterson reported four cases of this disease which had been under his care, two of them in the University Hospital. I desire to add one case to that number, making a total of three cases which have been operated upon at the University Hospital since 1901.

The case is as follows: Gynecological No. 744, entered the University Hospital December 10th, 1903. Patient is 53 years of age, has been married 32 years. Her family and personal history are practically negative. Menstruation appeared at the age of 15. Patient passed through menopause 10 years ago. She has borne two children, the elder being 28 and the younger 20 years of age. Puerperal history is negative. Appetite and digestion are good, bowels and bladder are negative.

The presence of malignant disease first manifested itself in the latter part of June, 1903, six months prior to the patient's

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entrance to the hospital. At that time she noticed an itching and burning sensation on the inner side of the right labium minus. In October, 1903, an abrasion appeared about 1 millimeter in diameter and soon after the patient noticed a tumor about the size of a hickory nut at the site of the original lesion. This was not painful, although it was very painful and sensitive on pressure. The growth continued to increase in size, and examination the day after the patient's entrance to the hospital showed the following:

The vulva is the seat of a growth, which arises abruptly from the inner aspect of the right labium minus. It projects above the edge of this labium about 1 centimeter. It extends over the vestibule just to the edge of the meatus. Above it involves the tip of the clitoris and just approaches the left labium minus. It extends downwards on the right side about 4 centimeters. It is 2 centimeters wide at its widest part. The surface is covered with rather coarse granulations, with deep ulcerations in the center. There is a purulent grayish white film over most of the surface. The right edge is indurated and very sensitive. The prepuce of the clitoris is very much swollen and edematous. There are excoriated points scattered over the labia from 1 to 3 millimeters in diameter, evidently due to scratching. The inguinal glands on the right side are enlarged to the size of marbles and are quite tender. The glands on the left side are only slightly enlarged.

The patient was operated upon December 15th, 1903. The inguinal glands on either side were first dissected out and the wounds closed with interrupted sutures of silkworm gut. The growth was then touched with the actual cautery and the entire vulva, including the clitoris, was

dissected away, elliptical incisions being made on either side from the pubes down to the fourchette. There was considerable bleeding, which was controlled by artery forceps and sponge pressure. The edges of the wound were brought together by continuous catgut sutures for the deeper tissue and interrupted silkworm gut sutures uniting the skin to the cut edge of the mucous membrane of the vagina.

As the meatus was not involved, a small portion of mucous membrane surrounding it was left, which was stitched to the surrounding tissue by interrupted silkworm gut sutures. A self-retaining catheter was then inserted. The patient made an uneventful recovery and left the hospital on January 11th, 1904. She has been kept under observation since she returned home and there has been no sign of a recurrence of the disease.

Microscopic examination of the tissue removed shows the following: Serial sections of the glands removed failed to reveal any secondary involvement. Section through the border of the growth on the sound side shows the ordinary stratified squamous epithelium with its underlying areolar tissue. On the advancing border, the papillary layer extends deeply into the subcutaneous tissue as long finger-like processes. About these extensions there is a small cell infiltration and increases of connective tissue with many new blood vessels. Between the cords of epithelial cells and throughout the infiltrated area are numerous eosinophiles. In some places beneath the sound epithelium are areas with many nests of squamous cells which have advanced from other levels, some of these nests showing epithelial pearls. In the most active of the growth, the cells are very irregular. The nuclei show great variation in size, shape and chromatic con-

tent. For the most part they are large and hyperchromatic and show numerous division figures. The superficial cells in the older part have undergone simple necrosis and the surface is covered with leucocytes, fibrin and bacteria. Diagnosis: Squamous cell carcinoma of vulva.

Epithelioma of the vulva occurs most commonly in women who have passed the menopause, between the ages of 45 and 60, although it has been found between 30 and 40, and Peterson reports a case at the age of 84. It is a rare condition, as seen by the fact that during the past three years in the University of Michigan Hospital, of the nine hundred patients admitted to the gynecological service, and of whom accurate case records have been kept there have been but three cases of primary carcinoma of the vulva. In this time, there have been thirty-nine cases of carcinoma involving the female genital tract, 7.7 per cent. of which have been primary in the vulva.

The case reported above shows the typical course of the disease. The first symptom noticed by the patient in the majority of cases is an intense itching. Soon after, a hard, nodular mass may be seen, infiltrating the skin. As the disease progresses, excoriations occur and there are areas of ulcerating, sloughing tissue scattered through the center of the growth, while the edge is beveled and not undermined. The parts involved are usually very painful and sensitive, and pain on micturition is often a prominent symptom. The inguinal glands on the same side as the growth become involved and as the growth invades the opposite side of the vulva, the glands on that side become infected. There is usually very little difficulty in making the diagnosis and, where any doubt exists, a portion of the growth

should be removed and examined microscopically.

The only treatment for this class of cases is that which aims at radical removal of the entire diseased tissue, including the vulva and clitoris.

In no given case is it possible to say that the inguinal glands are not involved, and it is, therefore, absolutely necessary that they be removed also. In performing the operation, the glands should first be dissected out, care being used to avoid contamination from below. It is often best first to disinfect thoroughly the sloughing mass by the actual cautery or some caustic agent before beginning excision. The vulva and clitoris are removed by deep elliptical incisions starting well above the latter and meeting below the fourchette. The bleeding is usually free, but can be controlled by hemostats and sponge pressure. The parts are then brought together by sutures passing from the healthy skin on the outside to the mucous membrane of the vagina. In no case of carcinoma of the female genital tract does the radical operation show such good results as in primary epithelioma of the vulva. It is, therefore, the duty of every physician to see that the condition is recognized early and subjected to the appropriate treatment.

Hernia Models.—D. T. Eisendrath, Chicago (*Journal A. M. A.*, March 18), describes a frame on which to demonstrate the anatomy of inguinal hernia and the operation for its radical cure. The muscles and fascia are represented by pieces of cloth of various colors, and the blood vessels and the cord are represented by rubber tubing and tape. With this model Dr. Eisendrath has been able to demonstrate the radical operation for hernia to an audience of over four hundred persons, every detail being distinctly seen by all.

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Editorial

COUNCIL OF PHARMACY AND CHEMISTRY, A. M. A.

The Board of Trustees Journal A. M. A. has appointed a Council of skilled pharmacists and chemists, to sift that portion of medical supplies outside the U. S. Pharmacopia by the following rules, viz.:

(The term 'article' shall mean any drug, chemical or preparation used in the treatment of disease.)

Rule 1.—No article will be admitted unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article, be furnished for publication. (Sufficient information should be supplied to permit the Council to verify the statements made regarding the article, and to determine its status from time to time.)

Rule 2.—No chemical compound will be admitted unless information be furnished regarding tests for identity, purity and strength, and if a synthetic compound, the rational formula.

Rule 3.—No article that is advertised to the public will be admitted; but this rule will not apply to disinfectants, cosmetics, foods and mineral waters, except when advertised in an objectionable manner.

Rule 4.—No article will be admitted whose label, package or circular accom-

panying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to vaccines and antitoxins nor to advertising in medical journals, nor to literature distributed solely to physicians.)

Rule 5.—No article will be admitted or retained about which the manufacturer, or his agents, make false or misleading statements regarding the country of origin, raw material from which made, method of collection or preparation.

Rule 6.—No article will be admitted or retained about whose therapeutic value the manufacturer, or his agents, make unwarranted, exaggerated, or misleading statements.

Rule 7.—Labels on articles containing "heroic" or "poisonous" substances should show the amounts of each of such ingredients in a given quantity of the product.

Rule 8.—Every article should have a name or title indicative of its chemical composition or pharmaceutical character, in addition to its trade name, when such trade name is not sufficiently descriptive.

Rule 9.—If the name of an article is registered, or the label copyrighted, the date of registration should be furnished the Council.

Rule 10.—If the article is patented—either process or product—the number and date of such patent or patents should be furnished. If patented in other countries, the name of each country in which patent is held should be supplied, together with the name under which the article is there registered."

Preparations conforming to these rules will be published by the Journal of the A.

M. A. in a book called "New and Non-Official Remedies." Preparations not conforming to these rules will be refused admission to the Journal A. M. A. advertising space. Thus for the first time the medical profession will have established rules for advertising in its Journal—supported by a scientific study by its own experts.

It is to be expected that all the State medical journals will adopt this standard, and doubtless many private journals. The members of the Council are as follows:

ARTHUR R. CUSHNY, Ann Arbor.
 C. LEWIS DIEHL, Louisville.
 C. S. N. HALLBERG, Chicago.
 ROBERT A. HATCHER, New York.
 L. F. KEBLER, Washington.
 J. H. LONG, Chicago.
 F. G. NOVY, Ann Arbor.
 W. A. PUCKNER, Chicago.
 SAMUEL P. SADTLER, Philadelphia.
 J. O. SCHLOTTERBECK, Ann Arbor.
 GEO. H. SIMMONS, Chicago.
 TORALD SOLLMANN, Cleveland.
 JULIUS STIEGLITZ, Chicago.
 M. I. WILBERT, Philadelphia.
 H. W. WILEY, Washington.

Besides, the journal will establish laboratories in its own building under its supervision for verifying other statements or undertaking original studies of special preparations.

The names of the Council give assurance that the sifting will be done wisely and thoroughly.

We are especially pleased to make this announcement because the Council of the Michigan Society presented the same idea to the meeting of that body last June. It received it favorably, and instructed its delegates to present it to the A. M. A. and urge its adoption. It was so presented

but fell by the way. Its adoption by the Board of Trustees, fully commends itself to the profession in Michigan, equally with that in other States.

Various objections were made to it at Atlantic City meeting A. M. A., but these seem to be overcome, as indeed they were but straws. Intelligence and horse sense are all that is needed, inasmuch as the committee is backed by the wealth, prestige and power of a fairly united profession.

The Michigan State Medical Society and its Council may well be congratulated that its idea of a "Clearing House for Medical Supplies of Unknown Composition" under the guidance and control of the Journal A. M. A. is already an accomplished fact. No longer can it be said that the American Medical Association does nothing for the "rank and file" of the profession, because it has now undertaken to flood with light the darkness of therapeutic agents used by by said rank and file.

The greatest medical organization of the world has set its stamp of disapproval on the hidden war of commercialism, and stands for the open dicta of expert scientists.

With a mighty stride intelligent therapeutics will advance in its mastery of disease.

This movement will test the power of organization. By it we shall learn how firmly commercialism has intrenched itself within the profession. With the hundreds of millions of dollars invested in the business of secret remedies, commercialism will seek to give this move of the profession a "black eye." It is hoped that every doctor will actively stand for open, honest, scientific pharmacy, every day in the year and under all circumstances.

SOME REASONS WHY A STATE
SANATORIUM FOR THE TU-
BERCULOUS POOR SHOULD
BE ESTABLISHED.

Recognizing the progress made in our knowledge of the cause of tuberculosis and of its prevention and cure, the Michigan State Medical Society at its last session, held in Grand Rapids, appointed a special committee to petition the legislature for an appropriation of funds sufficient for the erection of a properly equipped sanatorium for the treatment of pulmonary tuberculosis. The County Societies of the entire state were requested to aid by the appointment of auxiliary committees. Through the combined labor of these committees a bill was accordingly introduced in both the senate and house. This bill provides for an appropriation of \$100,000.00 for the erection of a State Sanatorium, with a maintenance fund of \$20,000.00 annually. The management is placed in the hands of a Board of Trustees, appointed by his Excellency, the Governor, to consist of four legally registered physicians and two laymen—their services to be honorary—only their actual traveling expenses being paid by the state. They are empowered to appoint a Medical Superintendent and assistants, who are qualified in sanatorium treatment.

Two classes of patients are eligible for admission, first the indigent poor, to be paid for partly by charity organizations or counties from whence they are sent; and secondly, those who are able to pay in part or entirely the cost of maintenance, as may be directed by the trustees.

The erection of such institutions forms an important phase of the modern movement against tuberculosis, aiming at the *cure of the disease in its first and second*

stage, the dissemination of knowledge in its prevention, and lastly, a better protection to the Public Health.

It is conceded to be the duty of the states to assist in combatting this insidious disease by the erection of sanatoria for that large dependent class, who cannot seek climate, who must stay at home and often struggle for an existence at the same time.

Such institutions have been opened by the states of Massachusetts, New York, Maine, Rhode Island, New Jersey, Pennsylvania, Minnesota and Ohio, and have proved eminently successful. A universal charge of \$5.00 is made for each patient per week in these sanatoria, which the patient, the city or county, or charity organizations may pay. The remaining sum necessary to defray the cost of maintenance is borne by the state.

Nearly all other states have taken active measures for securing appropriations—the State of Indiana has appropriated \$137,000 this year for the erection of such an institution.

There are neither private nor public hospitals in Michigan where the tuberculous patient can be accommodated; they are refused admission in the general hospitals, because they are afflicted with a chronic and communicable disease. The only place open to them is the County House at Wayne, where are found two tents with thirty beds equipped by the Wayne County Poor Commission at a cost of \$2,000.00. The credit for this provision is due to the efforts of Dr. E. L. Shurly, and the arrangement has served a good purpose as far as the funds and facilities permitted. But patients object to receiving treatment in hospitals connected with poor asylums, and prefer rather to remain in their homes; many

during the early stage pursue their vocation while they should rest, and in an innocent and ignorant way endanger the lives of countless others, in the shops and stores, but more especially at their homes, where they gradually succumb, usually in the course of two years, under great financial distress and with inadequate care. The homes through indiscriminate spitting becomes centers of infection to their inmates, especially the children, and remain so to future tenants unless thoroughly disinfected. The disease being auto-inneculative, the patients often hasten their death by the inhalation of their own dried sputum, and also by the accidental swallowing of it.

State Sanatoria would provide for that large class of men and women who are clerks, bookkeepers, teachers and wage earners, and give them a chance for health and life.

Sanatoria teach the proper manner of life, a strict hygienic discipline, which together with the agency of rest, light, fresh air and nourishing food, restore many to health. The freedom from care and anxiety, the companionship, the spirit of hope, which is everywhere manifest, become factors in the cure. The preventive measures to protect themselves and others are taught, also the methods to strengthen resistance of the body, which they are later able to carry on at home, and by example teach others. They return after a sojourn of from three to six months, in possession of scientific knowledge, which renders them absolutely safe for even intimate association, and which saves them from being regarded as infective and as social outcasts.

The Adirondack private institutions and the New York and Massachusetts State Sanatoriums have demonstrated

that fully half of all cases can be cured, or at least arrested, which is its equivalent. The length of time to accomplish this differs, the average being six months. The climatic conditions in Michigan are as favorable as in Massachusetts or New York, and therefore the same results may be confidently looked for here. Besides it is desirable that patients should be cured in the climate in which they intend to live.

From an economic point of view the provision of sanatoria is regarded as a good investment. The soil and the people are the essentials for the welfare of the state. The loss to the state of a male wage earner, at the average age at which tubercular deaths occur, and which is between the ages of twenty and thirty, is estimated conservatively to be \$1,500.00. The social, moral and sentimental loss sustained by the commonwealth by tuberculosis cannot be estimated at all.

The death rate of this preventable disease in the State of Michigan is annually about 3,000; the mortality rate gives a clue as to the number of afflicted, which conservatively figured, indicates that 30,000 of the inhabitants of Michigan are tuberculous. The measures for the restriction and eradication of tuberculosis now in force in this State are inadequate without sanatoria. These institutions being regarded by all authorities as an indispensable part of the measure necessary for the diminution of tuberculosis. If the present state of affairs continue we are deserving of the criticism made upon the routine method of treating the consumptive by Dr. Pryor who said that "We treat the tuberculous patient at the wrong time, in the wrong place and in the wrong way until he dies, whereas he should be treated at the right time, in the

right place and in the right way until he is cured."

The committee ask your aid in influencing the legislature in favor of the bill, known as Senate Bill No. 69 and House Bill No. 34. It was introduced in the Senate by Senator Moriarity and in the House by Representative Whelan, speaker pro tem.

By requesting the representatives and senators from your district to make the bill a law, you will aid in the diminution of the high death rate from tuberculosis, and will help our state to maintain its reputation for progressiveness in providing for its dependents.

H. J. HARTZ, Chairman,
J. B. WHINERY,
BENJAMIN F. HORNER,
C. N. SOWERS,
B. R. SHURLY.

THE PORTLAND TRIP.

The Michigan physicians have arranged a most delightful itinerary for their trip to Portland, Oregon. Their car will leave Chicago July 3rd at 5.45 P. M. and arrive at Portland July 10th at 7 P. M. They will stop at several of the most beautiful spots along the Canadian Pacific, namely, Banft, Laggan and Glacier. A morning spent at Vancouver will be followed by an afternoon boat ride on Puget Sound to Victoria, and at Seattle they will remain from 5 A. M. until 1.15 P. M. on the 10th. Each physician will arrange his ticket to return by any route he pleases and when he pleases. The round trip rate of \$56.56 from Chicago does not contemplate the long trip to California but arrangements have been made whereby for \$11 additional not only may one go

to San Francisco and return by any route but even go to Southern California back to San Francisco. They return by way of Salt Lake, Colorado, etc., stop-overs being allowed at all important points.

Space to fill one car has already been spoken for and undoubtedly a second car will be required. Those desiring accommodations should make their wishes known at once to Dr. F. W. Robbins, 73 Cass St., Detroit.

LOBAR PNEUMONIA IN INFANCY.

John Lovett Morse,* Assistant Physician at the Children's Hospital and at the Infants' Hospital, Boston, gives expression to his views on this question as follows:

Onset.—The onset, while acute, is less stormy than would appear from the usual descriptions. A chill practically never occurs. Convulsions are very unusual. They occurred in less than 1 per cent. of The Infants' Hospital cases. Vomiting is comparatively common. Cough rarely amounts to much in the beginning. High fever usually develops rapidly and is generally accompanied by drowsiness and apathy.

Temperature.—The most common period of pyrexia is, as in adults, seven days. A shorter duration of the fever is more common in infancy, however, than in later life, being more common, moreover, in the first than in the second year. The average duration of the fever is longer in the fatal cases than in those terminating in recovery. Hyperpyrexia is more common than in later life. In The Infants' Hospital series the temperature went over 105° F. in 41 per cent.; in

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11 per cent. it did not go over 103° F. The temperature is often irregular. Remissions of even as much as from 3° to 5° are not at all uncommon. Crisis is less frequent in infancy than later, and is, moreover, less frequent in the first than in the second year. In The Infants' Hospital cases, crisis occurred in 54 per cent. of the patients in the first year and in 77.5 per cent. of those in the second year. Lysis is especially common in the cases of long duration. Collapse during the crisis is less frequent than is usually taught.

Pulse.—The usual pulse-rate is between 150 and 170, being over 150 in about 75 per cent.

Respiration.—The usual respiratory rate is between 55 and 80. It is more often above 80 than below 55. The rate of the respiration is always increased out of proportion to that of the pulse. This change in the pulse-respiration ratio is most important in diagnosis.

Cough.—Cough is seldom a prominent symptom and rarely occurs unless the infant is disturbed or excited.

Pain.—Pain, as far as can be judged from the babies' actions, is a very constant symptom. Many show distinct evidences of pain by cry and cough when disturbed, and others keep as quiet as possible and avoid everything likely to cause deep breathing. Either condition should, in an infant, suggest the presence of pneumonia.

Skin.—Flushing of the cheeks is not at all common. When present, it may be on either one or both sides. In my opinion, it is of no diagnostic value either as to the presence of pneumonia or as to its location. Cyanosis is unusual except in the more severe cases. Pallor, however, is very common and when marked is of bad prognostic import. Eruptions, with

the exception of transitory erythemas, are rare; herpes labialis is most unusual.

Digestive Tract.—Gastrointestinal symptoms are very common and very important. Marked anorexia is the rule. The problem of feeding infants with pneumonia is often a difficult one and sometimes can only be solved by the use of the stomach-tube. Diarrhea is far more common than constipation and is often of serious import. Distention of the abdomen is frequent, causes great discomfort, is difficult to relieve, and often hastens the fatal termination.

Kidneys.—Practically all textbooks agree that the kidneys are rarely involved. My experience leads me to differ from this teaching, which is due, I suppose, to the fact that the urine is seldom examined in infancy. In my experience the urine, which is always concentrated, often shows the evidence of acute degeneration and occasionally of acute inflammation of the kidneys. In some instances the renal disease may be the cause of death.

Blood.—The changes in the blood are the same as those found in later life, modified to a certain extent by the peculiarities of the infantile blood.

Nervous System.—The usual mental condition in infancy is one of drowsiness or apathy. Symptoms of cerebral excitement are comparatively unusual. When they occur early in the disease they are almost invariably "functional" in origin; when they occur later, they usually are. True meningitis, due usually to pneumococcus infection, may sometimes occur. If so, it is usually late in the disease. It cannot be diagnosticated without lumbar puncture, as even localized spasms or paralyzes may occur in cases in which the autopsy shows no evidences of meningeal inflammation. The nervous symptoms

are due in many cases to a complicating inflammation of the middle-ear. In the "functional" cases, the nervous symptoms are frequently associated with a high temperature. They bear no relation to the amount or part of the lung involved.

Lungs.—The physical signs of pneumonia in infancy are essentially the same as in later life, modified to a certain extent by the peculiarities of the infantile thorax. Some points, however, are worth mentioning. A diminution of the respiratory sound on the affected side is not infrequently the earliest sign and is of great importance in diagnosis. Tympany, transmitted from the abdomen, is not at all unusual in pneumonia of the lower lobes. The signs of solidification are often lacking for several days and may not appear before the crisis.

The statistics in The Infants' Hospital series do not corroborate the old teaching that the apices are most frequently involved in infancy but agree with Holt's figures for infancy and childhood, the order of frequency being left lower, right upper, right lower and left upper lobes. A whole lobe is more often involved than a part. Several lobes may be involved together, but more often successively. There is no relation between the mortality and the part of the lung involved. Apex pneumonias are no more fatal than those at the base. The mortality, does, however, vary directly with the amount of lung involved.

Complications.—It is probable that in all cases in which the pneumonic process reaches the surface of the lung there is a dry pleurisy. Friction sounds, are, however, almost never heard. A serous effusion is very unusual, but a purulent effusion is not uncommon and may develop either during the course of the pneumonia

or during the first few days after the crisis. It was present in about 8 per cent. of The Infants' Hospital cases. Gangrene and abscess of the lung are almost unknown as sequels of pneumonia at this age. It must not be forgotten, however, that bronchitis and bronchopneumonia may complicate pneumonia in infancy.

The pneumococci may attack any of the serous membranes. The pericardium and endocardium are almost never involved in infancy, the peritoneum very rarely, the meninges occasionally. Acute inflammation of the middle-ear, pneumococcic or otherwise in origin, is probably the most common complication. It occurred in 18 per cent. of The Infants' Hospital series. Nephritis is more common than is usually supposed.

Mortality.—While the mortality of pneumonia in childhood is very low, it is not so in infancy. The textbooks give altogether too favorable a view of the mortality at this age, because they do not, as a rule, distinguish between infancy and childhood. Pneumonia in infancy is a serious disease. The mortality in The Infants' Hospital series was about 25 per cent. This is undoubtedly higher than the mortality in private practice and in infants not of the hospital class. Although too high, it does show, nevertheless, that pneumonia in infancy is a very serious and fatal disease.

Prognosis.—The younger the infant, the worse is the prognosis. The prognosis varies with the amount, but not with the part of lung involved. Fever lasting more than nine days is of serious import. The prognosis is good when the temperature is not over 103° F.; it is serious when over 106° F. Variations between these two points have little or no influence on it. The prognosis is good when

the pulse is not over 140 or the respiration over 55. The amount of the increase above these limits is of little importance. Convulsions occurring at the onset are not important; those occurring later are serious, as they usually mean severe toxemia or meningitis. The gastro-intestinal are the most dangerous of the more common complications. Empyema is always a serious complication. It is more fatal in the first than in the second year. The prognosis is better when it is recognized and operated on early, and varies directly with the general condition.

Treatment.—The treatment is hygienic and supportive rather than medicinal. Far more harm can be done by overmedication than by undermedication. The infant should be disturbed as little as possible. It must have the greatest amount of fresh, cool air—if possible, it should be kept out of doors during the day; next best, close to an open window. The diet must be carefully regulated to suit the weakened digestion, and the food forced, if necessary. Stimulation should be used when indicated, and not as a routine measure. Strychnin is most useful; alcohol comes next; others are rarely necessary or advisable. The fever should not be treated unless it causes marked nervous symptoms or depression. It should then be treated by cold externally and not by coaltar antipyretics internally. Cold must be used cautiously, as infants bear it badly. Fan baths and cold packs are usually better borne than sponge or tub baths. Cold applications to the head may cause great depression and must be used, if at all, with great caution. Local applications should not be used except for pain, for which hot applications are better and safer than cold. Bromid and codein may, if necessary, be used for rest-

lessness if it is not relieved by simpler and more rational measures. Oxygen sometimes relieves cyanosis. The so-called "specifics," including creasote in its various forms, and the various serums, have, in my opinion, no effect on the course of the disease.

"A DOCTOR MAY TEACH WITHOUT A PROFESSORSHIP."

Once on retiring from an entire day spent at a medical society gathering—one which blended in normal proportions the intellectual with social, a companion, musingly, uttered the above remark. Yet for many years he had struggled in all possible ways to secure a professorship in a medical college, and because of failure had become cynical. At the meeting in question, the first of its kind he had ever attended, he had mingled for hours with his fellow practioners, telling them of his work and listening to the story of theirs, read a paper, discussed the work of others, and finally as the evening shades darkened, had eaten with them at a common table, entering into the occasion with unaccustomed zest.

Then the truth dawned upon him that all the day he had been a teacher of his fellow practitioners—a teacher of facts of observation, and reasonings thereupon—a teacher in the endeavor to enthuse others with his own conceptions of his work—a teacher in the endeavor to lead others to what he regarded better practice—a teacher of kindly good will with all whom he met and through these with the broader world.

Since that hour of awakening that doctor has led a new life. To others he has been far more helpful—in fact he lives largely in the satisfaction that he has

taught one or more how to be a better doctor—one or more laymen how to live a life more free from physical danger, or moral degeneration.

No more is he stirred by envy of medical college professors, no more does he lament his lack of opportunity to teach. He finds pupils in every doctor met, in every patient studied, in every household visited, in every organization of which he is a member. No longer is he content to leave his patients safely convalescent from an operation or disease, he must teach them how to avoid some pitfalls which he knows lie in the path they must tread. In the church, in politics, in education, in ventilation, draining and a thousand other things he is known as a sound teacher—interesting as well as helpful.

A doctor may teach evil as well as good, or the good may prove evil if taught at unfitting time or place. His very name of doctor is no longer a mere trade mark, but a truthful statement of an acknowledged fact.

That not a few doctors neglect opportunities to teach is self-evident, else we would not need societies for the study and spread of existing knowledge respecting the mode of living necessary to check the "White Plague." For lack of knowledge countless young boys and girls fall into sexual vices, to the damage of both themselves and friends. Because they were not taught, many others become slaves to the abuse of alcohol and the like.

Because untaught by fellow doctors, many a young doctor has failed of that development needful for his best work. Per contra the stimulus of a neighbor doctor has awakened enthusiasm, stirred latent capacity, for the highest professional achievement.

Right about every doctor are medical societies, where he could be a teacher of crowds—crowds that are languishing because he fails to present himself at their meetings, and teach the "class" during his hour.

In every county of Michigan are county societies that fail of their highest capability because some doctor in the county has failed to do his part as a "teacher." Organization of the profession demands for its best estate the constant activity of every doctor as a teacher of his Branch of the State Medical Society.

We might prosper if we had no medical colleges, provided each doctor taught his fellows that which he knew—but our prosperity will vanish, no matter how many medical colleges exist, provided the individual doctor slights his "opportunities for teaching."

THE DEATH OF DR. ALBERT B. PRESCOTT.

On Feb. 28th, 1905, last honors were paid the remains of Dr. Prescott by surviving friends, at his Ann Arbor home, thus breaking the ranks of the Honorary Membership of the present Michigan State Medical Society. Dr. Prescott was born to be honored, respected and loved by all with whom he came in contact. He was clean in life, a diligent scholar, a successful investigator, an excellent teacher, devoted to his family, his church, his town, his profession, the University—always in every relation of life making better everything that he touched.

Graduating in 1864 he served as assistant surgeon till the close of the Civil War. In 1865 he was appointed assistant professor of chemistry; in 1870 he was made professor of organic and applied

chemistry; since 1876 he was dean of the school of pharmacy, and since 1884 director of the chemical laboratory.

In 1891 he was President of the American Association for the Advancement of Science; in 1876 he was made member of the London Chemical Society; President of the American Pharmaceutical Association in 1900.

Since 1871 he has contributed to the periodical literature of organic analytical and pharmaceutical chemistry. To other journals and magazines he has given occasional articles.

In 1886 Michigan University gave him the degree of doctor of philosophy, and in 1896 the degree of LL.D. In 1903 Northwestern University gave him the degree of doctor of laws.

Historians will record these and allied facts of Dr. Prescott's career; but real history will note his effect upon the young lives he has trained for professional work. It is much to so guide nature's forces as to evolve seedless apples, but it is infinitely more to have helped to make wiser, truer men—men needed to stem the tide of degeneracy, by the vigorous living of civic virtue, intellectual breadth, and professional accomplishment.

He is survived by a widow living at Ann Arbor, a son Herbert F. Prescott, in Detroit.

In common with the vast army of his students filling most diverse positions in life, we mourn his loss, and tender his bereaved family our deepest sympathy. May his chair at the University be filled by as competent and loveable a teacher; his place in science be crowded by many of his old students seeking to emulate their former master. The medical profession of Michigan will sadly miss his

earnest, kindly presence, and his sympathetic encouragement of all that was best in its life.

County Society News.

CHIPPEWA COUNTY.

A regular meeting of the Chippewa County Medical Society was held at Sault Ste. Marie, Tuesday evening, Jan. 3, 1905. O. J. Ennis, the retiring president, introduced the officers (elected at the annual meeting held December 6, 1904), for the ensuing year.

President, Fred Townsend, Sault Ste. Marie.

Vice-President, Alex. MacDonald, Sault Ste. Marie.

Secretary, R. C. Winslow, Sault Ste. Marie.

Treasurer, P. J. B. LeBlanc, Sault Ste. Marie.

President Fred Townsend took the chair and presided at the meeting.

Under "Clinical Cases," J. Rosenthal, of Sault Ste. Marie, cited an interesting case where he found symptoms of "rice bodies" in the hand of a patient who had been ailing for some time, and who had been under the observation of several local practitioners.

D. B. Harison, of Sault Ste. Marie, president of the State Medical Society, gave a very instructive and interesting talk on the preliminary education and requirements exacted by the State Board of Registration in Medicine, of applicants who wish to become medical students in this state. Dr. Harison also gave a history of the growth of medical education in the United States, and the requirements for matriculation from the earliest period up to the present time; compared the requirements for matriculation to the study of medicine in the state of New York with that of our own state; and mentioned the work that is being done by the American Confederation of Reciprocating, Examining and Licensing Medical Boards. At the close of Dr. Harison's talk some remarks were made on the subjects covered by him, by Drs. Ennis, Beadle and Townsend.

R. C. WINSLOW, Sec'y.

INGHAM COUNTY.

The regular bi-monthly meeting of Ingham County Medical Society was held at Lansing, March 9, 1905.

A resolution was passed requesting Governor Warner to appoint H. B. Baker Secretary of the State Board of Health.

O. S. Bailey, of Lansing, read a paper on "Ergot and Chloroform, Uses and Abuses."

L. ANNA BALLARD, Sec'y.

LAPEER COUNTY.

At the regular meeting of the Lapeer County Medical Society W. S. Hutchinson, of Detroit, read a paper on "Heart Disease in Children."

Abstract:

Heart disease in children is not a rare or a common condition. When present, it exercises an important influence on the future welfare of the little patient. The practitioner should be constantly on the watch for it in children who are subject to growing pains, rheumatism, chorea, infectious disease, and tonsillitis.

The treatment recommended is complete rest, digitalis when indicated, strychnine, and the salicylates.

The conclusions of the paper, based on 20 cases, are: Acute endocarditis in children is in a very large percentage of cases secondary to rheumatism.

The symptoms of rheumatism are variable, and articular symptoms may be entirely absent or manifest themselves long after the development of an endocarditis.

Proper attention to a rheumatic tendency will frequently prevent the development of an endocarditis.

H. E. RANDALL, Sec'y.

MUSKEGON COUNTY.

The Muskegon County Medical Society held its regular meeting March 3, 1903, at Muskegon. G. S. Williams, of Muskegon, was appointed alternate. Resolutions were adopted endorsing the efforts of the State Medical Society to secure state appropriations for a state hospital for consumptives.

Resolutions were also adopted endorsing the movement of the State Society to secure the passage of the bill to reduce the time during which suits for malpractice may be instituted.

V. A. CHAPMAN, Sec'y.

SHIAWASSEE COUNTY.

The regular monthly meeting of the Shiawassee County Medical Society was held in Owosso March 7, 1903. Don M. Campbell, of Detroit, read

a paper entitled, "Chronic Suppurative Otitis Media—Its Surgical Treatment."

Abstract:

The average doctor of to-day looks with dread and apprehension on the possible complications that may arise in an acute otitis media or mastoiditis, the imperative acuteness of the symptoms and rapidity of the onset of the various complications having driven this lesson home with decision.

In vivid contrast to the certainty and calmness with which the profession has viewed suppuration of the middle ear and mastoid cells is the position taken by the insurance companies: "Has the applicant a discharge from his ears?"

"Yes."

"Rejected" is the brief but decisive verdict of these great gatherers of vital statistics.

If this position of the actuaries of the insurance companies could be borne in upon every professional mind and made to stick there it would bear fruit to the advantage of this class of cases.

Another contrast which is not hard to realize nor difficult to account for is the way in which acute suppurative otitis media has come to be regarded as opposed to the way in which the chronic form of the difficulty is looked upon.

As has been said before, the profession has to a large extent become fully awakened to the important bearing that acute suppurative otitis media and mastoiditis has upon the life of the patient, but to a far lesser degree is chronic suppurative otitis media looked upon as an important disease capable of terminating the life of the patient and demanding immediate and skilled attention.

There is, however, no doubt at all that many cases of chronic suppurative otitis media terminate in various forms of intracranial suppuration, septic meningitis, cerebral or cerebellar abscess, subdura abscess or sinus thrombosis and that the patient's life is forfeited to such an extension.

This being so, there can be no question as to the importance of the disease and the necessity for the application of whatever remedy is necessary to bring a cessation of the discharge and a cicatrization of the suppurating cavity.

There are, it would seem to me, to be in all cases of this class which are rebellious to treatment by irrigation, cleanliness, astringent antiseptic and caustic medication, one of two pathologic conditions present.

There are other cavities in the middle ear or mastoid which are septic and do not drain properly or there is in the tympanum or its accessory cavities a bony necrosis.

The treatment of such a condition along surgical lines demands first the removal of all ne-

crotic tissue, and second, the establishing of thorough surgical drainage. If these two conditions can be met nature will soon bring about a cure.

Given a case of chronic suppurative otitis media, what course must be pursued?

If examination reveals necrosis in the middle ear or antrum, if the mastoid gives evidence of involvement in the suppurative process, or cholesteatomatous masses are found, the case would be immediately subjected to surgical intervention.

If, on the other hand, none of the above conditions are found, the case can be treated through the auditory canal by the removal of polypi or granulation tissue. Irrigation antiseptic-caustic and astringent applications for a time in order to see if cicatrization can thus be accomplished and the suppurative process abolished.

If after three months of such treatment the suppuration still continues, surgery should be brought into requisition, or if the suppuration should recur after being brought under control by medication, such a case should also be subjected to surgical treatment.

Another class of cases which demands surgical intervention promptly are those in which the symptoms of local irritation as evidenced by continued pain, headache, elevation of the temperature and rapidity of the pulse do not disappear with the cessation of the discharge.

The same may with even greater emphasis be said of those cases which present symptoms of impending intracranial extension or invasion of the tissues of the neck.

All cases of chronic suppurative otitis media in which examination convinces us that there is necrosis, cholesteatomata or an illy drained suppurating cavity should be subjected to surgical treatment.

Once this decision is reached the question of what operation shall be done comes immediately forward. Shall it be an ossiculectomy, a Stacke or a Stacke-Schwartz operation?

In my experience this is a very difficult question to settle and my own practice has been to subject these cases to an ossiculectomy and a curettage of the middle ear cavity when there has been an absence of symptoms pointing to mastoid involvement or cholesteomata.

My results in this course have not been brilliant, and in some cases in order to bring about a cure the more radical surgical procedure has had to be done later on, and as a result thereof my practice is now to do the Stacke-Schwartz operation in the beginning, and results have shown the wisdom of this procedure.

The operation of choice is the following:

After the patient has been anaesthetized and the field of operation properly prepared as for a mastoid operation, and incision is made from the tip of the mastoid up over the process and parallel to the attachment of the pinna to a point above the external auditory canal; this incision includes all the soft parts down to the bone. The soft parts including the periosteum is then reflected forward and the bony external auditory canal exposed above posteriorly and below.

The cartilaginous canal is separated from the bony canal by a transverse incision and the soft parts drawn out and reflected well forward. The mastoid antrum is then opened and the external cortex removed from the entire process. All cellular spaces are thoroughly broken down and curetted to clean solid bone, not forgetting the cells at the mastoid tip. The posterior canal wall is then removed, throwing the external auditory canal, middle ear and mastoid cavity into one.

The tympanic attic is exposed by removing the upper bony wall of the external auditory canal, thus exposing the tympanic cavity and the remnants of the ossicles.

All tissues in the tympanic cavity are now carefully curetted, the malleus and incus being removed.

Some questions come up always in the minds of the patients and they also confront the surgeon.

They are: First. Will there be much deformity. Second. What will be the percentage of success. Third. What effect will it have on the hearing? Fourth. Is it an operation dangerous to life?

In answer to these questions it can be truly said that there is practically no deformity, the operation is not dangerous to life, the percentage of course approximates 75 per cent., and usually there is some improvement in the hearing.

Some cases remain the same, and about 6 per cent. are made worse in the living by the operation.

After this large bony cavity thus formed has been rendered thoroughly cleaned of all necrotic tissue, the soft parts are replaced after slitting the cartilaginous external auditory canal, the incision is closed with catgut sutures and the cavity during the healing process is drained through the external auditory canal.

The after treatment extends over six or eight weeks, and demands the most pains-taking attention to detail. Cleanliness, antiseptic and caustic medication wherever granulation tissue shows itself.

In the last year and a half eight cases in my work have come to operation with the following results:

In one a cure was brought about by ossiculectomy and curettage.

In two cases in which the ordinary mastoid operation had been done without success were cured by the tympano-mastoid exenteration as detailed above.

Three were cured perfectly by the tympano-mastoid operation done in the beginning.

One is still under treatment, the operation having been done five weeks ago, cicatrization is nearly complete and discharge very scanty and free from odor. This case was subjected to ossiculectomy and curettage nine months ago without much improvement.

One case in which both ossiculectomy, curettage and the tympano-mastoid exenteration was done has failed to go on to perfect healing, there being still after a year some discharge which, however, is much less profuse than formerly and entirely free from odor.

In this case, while there is not a complete cure it can truly be said that the patient is in a much safer condition than formerly, as the suppurative process is much more limited and there is no retention of discharge as evidenced by freedom from odor.

Summary: 8 cases: 6 cured, 1 improved, 1 still under observation. No deaths.

In conclusion, it can with safety be urged upon the profession that chronic suppurative otitis media is an important disease, jeopardizing as it does the life of the sufferer; that there is a surgical remedy offering a fair chance of recovery; that all cases should be subjected to surgical intervention which are not cured by more conservative methods of treatment.

A communication was received and read relative to the bill now before the legislature, amending the law pertaining to malpractice suits, and the following resolution was unanimously adopted:

Whereas, As a bill is now before the Legislature limiting the time when an action for malpractice can be instituted, from three years to one year.

Resolved, By the Shiawassee County Medical Society, that we memorialize our Senator and Representative to use their influence and vote for the bill before the legislature, to reduce the time limit when an action for malpractice can be instituted from three years to one year.

P. S. WILLSON, Sec'y.

WAYNE COUNTY.

The Surgical Section of the Wayne County Medical Society was held February 27, 1903. William E. Blodgett read a paper entitled "The

Differential Diagnosis and Treatment of the Chronic Non-Tubercular Joint Disease."

Abstract:

The work of Dr. Joel E. Goldthwait and his associates in Boston, on the basis of a very large number of cases carefully studied both clinically and in the laboratory, leads to classification of the confused group of chronic joint diseases, formerly called chronic rheumatism, gouty rheumatism, arthritis deformans, gout, rheumatoid arthritis, etc., into the following types:

1. Simple Villous Arthritis, or "dry joint." Local process, commonest in knee, due to trauma, or strain, as from flat or pronated foot, and dependent on congestion and relaxation of synovial membrane and formation of villi and folds, as the result of the swelling of this membrane. The joint fluid is either normal or excessive. As the villi are rubbed and squeezed by the movement of the joint, the irritation and congestion are increased, and the fringes may undergo fatty degeneration, with formation of a lipoma arborescens. Villi may result from any form of chronic arthritis, but in simple villous arthritis the fringe formation is not a manifestation of a general disease, but represents a purely local process, and is unaccompanied by any considerable alteration of cartilage or bone. Pain on motion, creaking, swelling of the synovial membrane with obliteration of the fossae on either side of the patella, and occasionally palpable intra-articular masses are the chief symptoms. The principles of treatment consist in removal of any joint strain, as from pronated foot, stimulation of local circulation without increasing the irritation, as by alternate hot and cold douches, and support and limitation of motion, as by a flannel bandage. In case of failure of these measures, marked villous or lipomatous formation should be removed by operation.

2. Atrophic Arthritis. A general, progressive disease, covering a number of years, and attacking successively practically all the joints. The essential feature is atrophy of cartilage and bone as shown by X-ray, so that the whole length of the bones become osteoporotic, leading, unless arrested, to marked deformities and true bony ankylosis. The proximal finger joints are early attacked. The disease is subject to acute exacerbation and remission. The subject is usually a woman, young or old, and, as the disease progresses, becomes emaciated and pale, although the blood shows no changes except a tendency to increase of red corpuscles. The lymphatic nodes are not enlarged. The urine shows nothing important. The principle of treatment of this type

of joint disease is thorough stimulation, local and general. Use is insisted upon. Pain is combated by immobilization, if necessary, for a few days, with small doses of the salicylates or allied compounds. Salicylates, however, should not be given in large amount or for more than a few days, on account of their depressing effect. After a few days, a simple alkali with copious ingestion of water will usually suffice. The eliminative organs in general should be kept active. Contractures and adhesions should be overcome under an anaesthetic. The constitutional treatment consists in forced feeding on a mixed diet in which meat, red or white, forms an indispensable part, fresh air, and general roborant measures.

3. Hypertrophic Arthritis. Local or general. Characterized by thickening and ossification of edges of cartilages, with irritation and mechanical interference with joint mobility, and by referred pain. Commoner in the male sex and the latter half of life. Local trauma or excessive use predisposes. Any of the joints may be involved, but progressive involvement is not natural to the disease. The hypertrophy is palpable in exposed joints, and demonstrable by radiography. No marked tendency to production of deformity. Limitation of motion is simply mechanical, and is rarely complete. In the fingers, the terminal joints are involved, with production of Heberden's nodes; in the spine, the process results in stiffness, usually more marked in flexion toward one side than toward the other, with pain, due to nerve-root pressure, referred to the sciatic or other nerves of the leg, or occasionally to an intercostal nerve; in the hip, the same process leads to the morbus coxae senilis, the commonest disease of the hip in old people; in the knee, palpable ridges are formed; and in the foot, painful bony spicules may result. No noteworthy change in blood or urine. The principle of treatment is local rest and protection, according to the joint involved. Thus sciatic pain due to this process in the spine is usually quickly relieved by a plaster jacket, or, in subacute cases, by a less restrictive form of spine protection, as by a low canvas jacket. Forceful manipulation is contraindicated. Constitutional treatment appears to have no influence, except as the general health is kept up, and the excretory organs regulated. The diet need not be forced, and may include the ordinary amount of meat.

4. Infectious Arthritis. Includes most of the cases of so-called chronic rheumatism, as well as probably also acute inflammatory rheumatism. Depends either on micro-organisms within the joints or on toxins formed outside. Varies, according to kind and virulence of the exciting

micro-organisms and according or not as the organisms are within the joint, all the way from an acute septic joint to fleeting joint symptoms. All the joints that are to be involved at all show a tendency to become involved within a short time. The original focus of infection to which the joint involment is secondary is often in the tonsils, the intestinal tract, or the genito-urinary system. Thus the so-called rheumatism is tonsillitic, not the tonsillitis, rheumatic. Usually polyarticular, but may be monarticular. Contractures and adhesions are common, unless the process is mild or is arrested. If bone changes take place, the destruction and subsequent reformation of bone extend, as shown by radiography, widely outside the edges of the cartilages, thus distinguishing infectious arthritis from the bone changes of either atrophic or hypertrophic arthritis. Initial leucocytosis, then secondary anaemia. Urine of a septicaemia. Lymphatic nodes enlarged. Local treatment is rest during acute stage, and later stimulation, with correction of deformity or adhesions if such exist. The usual indication for surgical interference is failure of the joint, after about three weeks, to improve; under these conditions, free flushing out with hot sterile salt solution or a suitable antiseptic prevents extensive infiltration of the capsule and the resultant damage to the joint function. The general treatment is directed against the original focus, if discovered and found active, and against the toxæmia or septicaemia. Salicylates may be useful within the limits defined above. A simple alkali with large ingestion of water will overcome any tendency to the concentration and hyperacidity of urine that accompanies a great variety of diseases, and is a result and not the cause.

5. Chronic Gout. Less common, and less understood. Soft, movable deposits of urate of sodium in soft tissues about affected joints, often the finger joints, and absorption of bone, shaft or end, adjacent to deposits. Local rest and heat, with colchium or salicylates as analgesics, during attacks of pain; during remissions, tonic and nutrient treatment. A plain, non-alcoholic diet with a due proportion of nitrogenous food is allowed.

The reason that pathologists have not before recognized these types of joint disease is that the distinction rests on no one pathological process such as would be manifest at autopsy, but on a comparison of clinical course, physical signs, radiographic evidence, response to treatment, bacterial contents, and total pathological complex and development as judged by operative as well as post-mortem findings. Intelligent and successful treatment depends upon making such distinction.

P. M. Hickey, in opening the discussion, showed skiagraphs of a patient suffering from chronic gout. The patient was a laborer, living out of doors, taking much exercise and eating the plainest of food. There were no hereditary tendencies and no alcoholic history. After working in the water all of one summer, the joint lesions became manifest and tophi appeared in the ears. The soft parts about the joints were much swollen and now and again there would be a discharge of a cheesy appearing material, which consisted of urate of soda.

Dr. Hickey commended the newer classification as given by the essayist and showed radiographs of atrophic arthritis, chronic tuberculous arthritis and gonorrhoeal arthritis.

T. A. McGraw said that the study of the pathology of joint lesions is most important for a clear differentiation is necessary in carrying out the treatment. Much of the ultimate pathology and etiology is unknown.

Max Ballin said that the surgery of the joints has been much neglected in our medical meetings, due probably to the great interest and advancement in abdominal surgery. From the paper of the evening we should carry away the practical point that the indiscriminate massage, often employed by the physician as well as by the osteopath, may be very harmful. Dr. Ballin showed a specimen of hypertrophied villi, removed from the knee joint.

B. R. SCHENCK, Sec'y. Surg. Sec.

Miscellaneous.

NEWS ITEMS.

Rontgen has never been interviewed, has never been banqueted, and has refused immense sums of money for a book on what he styled "a new kind of ray"—in short he is of the least self-advertised of scientific authorities. The medical profession's reputation would be better had all his followers followed his example in this respect.

The *Journal American Medical Association* recorded the deaths of 2,142 during 1904. The average age was above sixty—the average length of practice over thirty years; 205 died of heart disease; 179 of cerebral haemorrhage; pneumonia, 172; nephritis, 91; tuberculosis, 90; cancer, 39; 143 to violence; 36 suicide; 12 were murdered. The ages ranged from 22 years to 104; three passed 100.

The French premier, M. Combes, is a doctor by profession, a great student of foreign languages and a bicycle devotee.

The New York Life Insurance actuaries say that total abstainers are better risks than even moderate drinkers by from twenty to fifty per cent.

The bill for the National Incorporation of the American Medical Association is now before the Judiciary Committee of Congress. Every doctor should exert all his influence to persuade Congress to pass this bill.

The weekly issue of the *Journal of the American Medical Association* has reached thirty-six thousand weekly. Its size has so increased that it has been necessary to bind it in magazine form and put on a cover. All this has so crowded the Association building that it is impossible to find space for another person to work. Hence the need of a new building for which plans have already been drawn. Fortunately the Association owns several adjacent lots and can build in conformity with present structure.

We regret to announce that Dr. Cushney, Professor of Pharmacology at Michigan University, has accepted a call to the University of London. Being a Scotchman, he loves the British Islands better than Ann Arbor. We rejoice in the fine work he has done in the United States, and regret that he is to leave us.

During the past ten years the number of students at Medical Department of Columbia University, N. Y., has decreased from 779 to 560. The cause is the raising of the standard and the tuition fees. May the good work extend to all other medical departments and medical schools—all will be benefited by such treatment of medical education.

Arrangements have been made for an interchange of professors of Harvard and Germany. The emperor is seeking to make such interchange on a large scale. Properly arranged, this would result in great benefit to all.

It would be well could students in the medical departments of universities having similar requirements, without violence, spend separate years in different institutions. Long since such a custom prevailed in Germany to the advantage of all concerned.

Dr. C. A. L. Reed, of Cincinnati, reports in *Journal American Medical Association* the results of a careful study of the sanitary method prevailing on the Panama Canal zone. Briefly he thinks they might be worse, but are far below any common sense standard. That they are in charge of a layman, accounts for the situation. He advises that the President ask for the resignation of the Canal Commission and appoint a new one along better lines.

If Americans had sense to learn the obvious lesson of the Japanese war, they would first arrange that the workmen have their perfect health guaranteed by the practical applications of modern sanitarian principles. As the power of the Japanese army inheres in the individual soldier; so that of the canal commission inheres in the vigor of the individual workman. If this be assured, engineering problems will be solved with the least waste of time and money.

The same thing is true of our Republic, as each individual most nearly possesses normal vigor of body, mind and heart, from cradle to grave, so will the nation be invincible. This vigor, rather than armies, navies or munitions of war, will insure national peace and power.

The Hall of Fame.—In 1900 an unknown philanthropist offered \$250,000 for the erection of a Hall of Fame. The gift was accepted by the Council of the University of New York, and has been used somewhat as follows: A structure was built in the form of a semicircle 500 feet long connecting the University Hall of Philosophy with the Hall of Languages. Within this hallway are 150 panels, each of which is to be given to some illustrious American. Under the rules only persons born in the United States, now dead ten or more years, and most eminent in their respective fields, are eligible for nomination. A nomination may be made by anyone which, after being seconded by a member of the University senate, is submitted for final vote to an electorate of one hundred eminent citizens.

It was proposed to fill fifty of these panels at the first meeting of the Council in 1900, but out of 252 nominations made only twenty-nine received the required majority (51) of the votes cast and were elected. It was at first thought best by the University Council to select names for the first fifty panels in 1902, but later it was deemed better to wait until the time for the second regular election (1905) and complete the first fifty at that time. According to the terms of the gift an election occurs every five years after 1900; five names to be added at each election so that in the year 2000 the Hall of Fame will be complete.

This year, then, there should be added twenty-six names to the Hall of Fame. Of the first twenty-nine selected in October, 1900, there was chosen no physician—it is the obvious duty not only of physicians themselves but of the public as well to see to it that in the election this year not less than three physicians are selected. Fifteen classes of citizens were recommended for selection; if physicians and surgeons are to have even their numerical share, three or four must be placed on this roll of honor.

The editor of the *Western Medical Review* desires to nominate five physicians, all of whom well deserve the honor which such an election confers.

1. Benjamin[†] Rush, of whom at the time of his death it was said, "the name of Dr. Rush gave a splendor to the American character and greatly added to its reputation throughout the republic of letters. His works are read coextensively with the language in which they are written. He has been one of the most prominent pillars on which his country's claim to be ranked with the learned nations has preeminently rested ever since Dr. Franklin was no more. Few or none of his contemporary fellow laborers can prefer superior or even equal claims as reformers and improvers of the theory and practice of medicine." As a signer of the Declaration of Independence he gave public mark to his patriotism, shown already in a thousand other ways.

2. David Ramsay, physician, historian, patriot—of him as a graduate from college, Dr. Rush said: "He is far superior to any person we ever graduated at our college. His abilities are not only good but great. His talents and knowledge are universal. I never saw so much strength of memory and imagination united to so fine a judgment." His historical writings were as successful as his practice of medicine, which is saying much, and by every effort he contributed to securing the independence of our country.

3. John Collins Warren. First professor of anatomy and surgery in the Harvard Medical School, patron of the first administration of ether for surgical purposes, and founder of the *Boston Medical and Surgical Journal*, one of the first medical publications of the present day.

4. J. Marion Sims, who revolutionized the practice of the surgical treatment of the diseases of women. He enjoyed a greater reputation than any other American surgeon, operating with brilliant success in all the capitals of Europe. He founded in 1855 the great Woman's Hospital in New York City, and the methods which he devised and perfected are among the richest gifts any member of the profession has ever given to humanity.

5. Oliver Wendell Holmes, physician, medical teacher, poet, remembered by thousands not more lovingly for his books than by many others, physicians who by lecture or by printed page have been his pupils. He rendered a great service to the medical profession by first calling attention to the contagiousness of puerperal fever, and his poems and prose writings will be read with delight as long as the language endures.

CHANGE IN MEMBERSHIP.

(Feb. 15th to Mar. 15th.)

NEW MEMBERS.

R. Broughton, Paw Paw, Mich.
 C. A. Carpenter, Onaway, Mich.
 W. T. Clemes, Blissfield, Mich.
 D. F. Dumbauld, Blissfield, Mich.
 H. D. Dunston, Pellston, Mich.
 J. F. Hicks, Menominee, Mich.
 C. V. High, Coleman, Mich.
 H. Hoover, Breedsville, Mich.
 D. C. Howell, Onaway, Mich.
 W. R. Hubbert, Detroit, Mich.
 L. C. Kent, Onaway, Mich.
 R. R. Lawrence, Hartford, Mich.
 W. C. Lawrence, Detroit, Mich.
 A. T. McLennan, Petoskey, Mich.
 N. C. Monroe, Millersburg, Mich.
 R. H. Nelson, Hudson, Mich.
 J. H. Nicholson, Hart, Mich.
 S. B. Robb, Leonard, Mich.
 V. W. Shirley, Onaway, Mich.
 G. Sjolauder, Midland, Mich.
 J. B. Snyder, Cross Village, Mich.
 C. A. Tallman, Weston, Mich.
 M. L. Teeple, Sand Lake, Mich.
 F. Tryon, Parshallville, Mich.
 V. Tupper, Bay City, Mich.
 R. C. Turck, Alma, Mich.
 C. T. Wilbur, Kalamazoo, Mich.
 J. Young, Onaway, Mich.

CHANGE OF ADDRESS.

C. S. Bulhand, Edwardsburg, Mich.
 W. A. Griffith, Coldwater, Mich.
 R. M. Olin, Caro, Mich.
 E. A. Planck, Edwardsburg, Mich.

DIED.

W. E. Bessy, Grand Rapids, Mich.
 A. B. Prescott, Ann Arbor, Mich.

BOOKS RECEIVED.

STUDIES IN GENERAL PHYSIOLOGY. By Prof. Jacques Loeb. Parts I. and II. The University of Chicago Press. Chicago, 1905.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY. By Geo. M. Gould, M. D. 2 vol. W. B. Saunders & Company Philadelphia and London, 1905.

ESSENTIALS OF PRACTICE OF MEDICINE. By W. R. Williams, M. D. Double number. W. B. Saunders & Co. Philadelphia and London, 1905.

GYNECOLOGY. By Henry J. Garrigues, A. M., M. D. J. B. Lippincott Co. Philadelphia and London, 1905.

MEDICAL COMMUNICATION OF THE MASSACHUSETTS MEDICAL SOCIETY. Vol. XIX, No. III, 1904.

THE URINE AND FECES IN DIAGNOSIS. By Otto Hensel, Ph. G., M. D., and Richard Weil, A. M., M. D., and Smith Ely Jelliffe, M. D., Ph. D. Rea Bros. & Co. Philadelphia, 1905.

THE OPHTHALMIC YEAR-BOOK. By Edward Jackson, A. M., M. D. The Herrick Book & Stationery Co. Denver, 1904.

THE MEDICAL EXAMINATION FOR LIFE INSURANCE AND ITS ASSOCIATED CLINICAL METHODS. By C. L. Greene, M. D., second edition. P. Blakiston's Son & Co., 1905.

AMERICAN ALKALOMETRES. Vol. IV. Edited by W. C. Abbott, M. D., and W. F. Waugh, M. D. The Clinic Publishing Co., 1905.

TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY. Vol. VII. Part I. 1904.

Angus McLean, of Detroit, has been appointed a member of the Michigan State Board of Health by Governor Warner.—Dr. McLean is a member of the Wayne County Medical Society, the Michigan State Medical Society and the American Medical Association. He is Professor of Surgery at the Detroit College of Medicine, surgeon to Harper Hospital and to the Wabash Railway Company.

Attitude of the Medical Profession Toward the Social Evil.—Howard A. Kelly, Baltimore (*Journal A. M. A.*, March 4), makes a plea for more active personal endeavor on the part of the profession and of the public for good morals. Indifference, he says, has been the attitude of the past, and its result has been a riot of sin and disease, debauchery of police service, and corruption of the whole body politic. The alternative of government control, advocated by some, is a sanctioning of vice and an ignoring of the principles of morality which are the basis of all positive law. Experience, Kelly says, does not show that the legislation of vice is any step toward its abolishment; the effects of legislation in the degradation of the medical profession are deplorable. What is needed, he believes, is a moral crusade sustained by an intense sense of personal responsibility in this matter.

Chronic Rheumatism, Gout, and Other Uric-Acid Diathesis Treated by the X-ray, High Frequency Currents and Vibratory Massage.—Sinclair Tousey says that his "uric acid technic" consists in the application of vibratory massage over the abdomen and up and down the spine for about ten minutes twice a week, and the application of high frequency currents on the same days for about fifteen minutes over the abdomen and up and down the spine and over the affected joints and nerves. The X-ray is applied locally, and only in cases of palpable deposit about a joint or nerve, of a nature which has been found resistant to the other applications. It does not form part of the uric acid technic, but has proven to be a most valuable adjunct in occasional cases. The author's electrodes for the application of high frequency currents are figured, and the manner of managing the electric energy required for this purpose, and for the production of the X-ray, is described in detail. Two illustrative cases are cited.—(*Medical Record*, March 4, 1905.)

Correspondence.

Dear Doctor (written to a member of the Michigan State Medical Society): Your favor of 14th inst. received. I think you are laboring under a misapprehension concerning the motives that have prompted the members of the Council to labor for professional organization, for you say: "As there no doubt is something good in it for you." Now, I assure you there is nothing "in it" for me or for any other member of the Council that is not available to every other member of the profession. The first year of organization work most of the members of the Council received reimbursement for actual outlays for railroad fare, postage, etc. At the close of that year it was found that the finances of the society were in arrears; that only strict economy would permit the continued publication of *The Journal* for the dues collected. Since that time no member of the Council has received a cent for expenses. We have visited the various counties in our districts, used much postage, attended the annual Council meeting in Detroit each January, looked after the business affairs of the Society thoroughly and paid our own expenses.

We have done this because we have become interested in the work of establishing professional unity, in assisting to build up our profession and make its position impregnable through union. If we succeed in the final outcome it must be through the masses of the profession coming to recognize the advantages accruing from *continued united* action. These advantages come to the profession as a whole, and each one must share in it to some extent. I know of no possible way by which those who have been devoting their time and money to the work can profit to any greater extent than their fellows, unless it be through the broadening and liberalizing effect upon our own minds by the many very pleasant visits we make to the excellent physicians of the counties in our districts. A striking demonstration of the power of a united organized profession has been just given by the success of the State Society candidate for University Regent in the recent Republican State Convention. You will note that of the fifty-four votes cast by the counties in this councilor district one candidate received fifty. Do you imagine such an outcome would have been possible with no organized county societies in these counties. We all know it would not. I hope to see you ever in the van of every movement for the advancement of the profession in your county.

Yours very truly,

W. T. DODGE, Councilor.

Editor: The State Society have a bill pending at Lansing to cut down the time during which physicians, surgeons and dentists may be sued for alleged malpractice to one year.

This bill will pass if the profession work for it.

We would like every member of the Michigan State Medical Society to do at once two things.

1. Write to Hon. Jas. E. Brockway, House of Representatives, Lansing, urging passage of the bill.

2. Write or interview each member of the Legislature with whom he has acquaintance or influence, urging support of the bill. Mr. Brockway would also like reports of blackmail actions brought or threatened, to use as illustrations of the justice of the proposed amendment.

Very truly,

W. E. SAWYER,

Chairman Committee on Legislation and Public Policy.

Hillsdale, Feb. 15, 1905.

Treatment of Epidemic Cerebrospinal Meningitis by Diphtheria Antitoxin.—E. Waitzfelder reports the results following the treatment of seventeen cases of epidemic cerebrospinal meningitis by the injection of large doses of diphtheria antitoxin according to the suggestion of A. J. Wolf. Five of the patients recovered completely; three died, of whom two were adults, and nine cases are still under treatment. Of these, five show such marked improvement as to indicate probable recovery, four being convalescent. Of the remaining four cases, all are in a serious condition and prognosis is impossible at the present time. Most of the cases were severe in their onset with well marked evidence of profound constitutional infection, as is to be expected in the early periods of an epidemic. The doses of antitoxin given were 6,000 units to children less than five years of age; 8,000 units to those between five and twelve, and 10,000 units to adults. This amount was injected under the scapulæ on alternate days. In some severe cases it was given daily. Usually the injection was followed by a fall of temperature and pulse, and great improvement in the general symptoms. No bad effects developed as the result of the administration of the antitoxin. Should the results in these cases prove to be consistently repeated in others, the author believes that to Dr. Wolf belongs the credit of having discovered the remedy for one of the most fatal diseases, and of having evolved a plan of treatment not second in its effects to the antitoxin treatment of diphtheria.—(*Medical Record*, March 11, 1905.)

Book Notices.

Under the Charge of

RAY CONNOR.

A TEXT-BOOK OF LEGAL MEDICINE. By Frank Winthrop Draper, A. M., M. D. Octavo volume of 573 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Cloth, \$4.00 net.

While Dr. Draper's work is intended primarily for the use of medical students interested in legal medicine, it cannot fail to be of great service to a large body of general practitioners who are liable to be called into court at any time. The disability which most physicians feel when forced to do court duty is well grounded in many cases where the medical profession has appeared in anything but a favorable light. Such a book as the one before us, which gives the doctor a clear conception of his rights as well as his duties and obligations, has thus an important mission to fulfil.

In an excellent introduction, the author considers the subject of ordinary court proceedings in criminal and civil prosecutions and other general considerations. The second chapter is given over to medical evidence and the medical witness. The sharp distinction is laid down between the ordinary witness who has to do with questions of fact, and the expert witness who is concerned with questions of opinion. Of course as regards questions of fact the medical man is on the same level with any other witness, while as an expert witness he is supposed to possess special qualification, both in point of knowledge and experience. The rights, duties and obligations of medical men acting in these capacities are gone into fully.

Many helpful hints are given as to the advantage of note taking on the spot or immediately after the occurrence in question. The chief requirements of a good expert are also laid down, and not the least of these is rugged honesty. The duty of giving expert testimony is not compulsory. The witness is compelled to answer questions of fact or suffer for contempt, but in the court, as in his office, the physician may decline to give his opinion.

The medicolegal subjects having to do with sex relationships, various forms of death and injuries are taken up systematically and form the bulk of the work. The physician's legal relations to his patients are taken up in a chapter by themselves and the question of malpractice clearly considered. A chapter on a medicolegal autopsy closes the book.

The index appended serves to make the contents readily accessible. The text is clear and the illustrations are comparatively numerous, and serve to make many of the points plainer than many additional words. The author's style is clear and attractive and he evidently believes in his own advice of expressing yourself so that you can be understood.

PRACTICAL PEDIATRICS. A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer. Authorized translation, with numerous Additions and Notes, by Herman B. Sheffield, M. D. Pages XII-544. Crown Octavo. Flexible Cloth, Round Corners. Price, \$3.00 net. F. A. Davis Company, Philadelphia, 1905.

This terra incognita to the average medical student is considered here concisely and yet fully. The book strives to be practical and yet complete. The teachings of Henschel are more or less reflected in the work and many additions have been made in the process of translation. The necessity for example of a physician's constant attendance after an intubation is wisely questioned by the American editor. A good description of the technique of O'Dwyer's operation is also added to the original German.

The section on infant feeding is relatively short for so important a subject, and the editor announces himself in favor of pasteurization which Dr. Graetzer hardly mentions. The first part and bulk of the work is concerned with the diseases and malformations of childhood from the prematurely born baby to the period of puberty. The difficulty of physical diagnosis is discussed with its causes and the methods of overcoming it. The diseases of the special senses as they are met by the general practitioner also receive attention. The recognition of adenoids is given the consideration it deserves and their proper treatment by operation under an anaesthetic pointed out. Only such diseases of the eye are considered as are common and can be recognized without special knowledge and training.

The second portion of the work considers the materia medica and therapeutics and is comparatively brief. An index completes the volume.

No illustrations are introduced to aid the comprehension of the text. The book is tastily gotten up and contains a great deal of very valuable and accessible knowledge of a practical kind.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Changes in the Heart Rate and Blood Pressures resulting from Severe Hemorrhage and Subsequent Infusion of Sodium Bicarbonate.—

One of Howell's conclusions after a study of shock was "Injections of alkaline solutions of sodium carbonate, intravenously or into the rectum during shock increase markedly the amplitude of heart beat and bring about a rise of arterial pressure. When shock is moderate, the injections may restore arterial pressure to almost the normal level. When the shock is severe, the injections may increase the arterial pressure by about 100 per cent. for long intervals, and the effect when it wears off may be restored by repeating the injections. The effect of the injections is due chiefly or entirely to a direct action on the heart." Dawson finds after an exhaustive experimental study that when one-half per cent. of sodium bicarbonate is added to the normal salt solution there is a rise to 115 per cent. in the systolic pressure. The clinical value he states as follows: The results of experiments indicate that under certain conditions the addition of sodium bicarbonate to the infused fluid may be expected to have a beneficial action. In extreme varieties of shock which is due to the loss of blood the addition of from one-half to one per cent. of bicarbonate of soda to the solution of 0.8 per cent. sodium chloride may be of advantage in two respects. First. The rise of all pressures, but especially the diastolic pressure is more pronounced than when the pure sodium chloride is used and so the circulation can be more nearly restored to the normal. Secondly, the quantity of fluid required is smaller than is the case with the pure chloride and the greater is the rapidity with which the solution can be carried into the circulation. There is one possibility not be overlooked in using the bicarbonate, that it may overwork the heart. For it seems likely that strong solutions of both the carbonate and bicarbonate act as cardiac stimulants to a degree which is simply astounding. It is then necessary to decide whether or not a cardiac stimulant is counterindicated in every case. Dawson finally concludes that it is a rational procedure to begin an intravenous injection with a solution containing the bicarbonate. When the pressure has reached a considerable height the bicarbonate may be omitted if the simple infusion is thought sufficient to maintain the pressure. —(PERCY DAWSON, *The Journal of Experimental Medicine*, Vol. vii., No. 1.)

The Role of an Excessive Meat Diet in the Induction of Gout.—

Watson, while he believes that there is an infective element in the production of gout (this was substantiated from an examination of the tissues of an acute gout in a fowl and from chronic gout in man), thinks this does not minimize the importance of the study of diet in its influence in the disease. If it is due to infection the main source of infection is in the digestive tract and the activity of the bacteria must depend upon the foodstuffs ingested. An exclusive raw meat diet with water tended to enlarge the thyroid and parathyroid glands in a fowl to from eight or ten times the normal size. This is a condition similar to the simple parenchymatous goitre of the human subject. Such a diet given to rats produced an effect on the same glands, but of an entirely different character, similar to the exophthalmic goitre of the human, but the animals had none of the other symptoms of the disease. He concludes meat diet has some effect on the thyroid gland. Its exact value is not yet understood. There has been a great increase in the consumption of meat in the last thirty years and we find that thyroid medication seems to have value in conditions apparently in no way connected with thyroid disease. Is it not possible that it is because the thyroid medication counteracts the meat influence? He has, therefore, in a number of cases of chronic gout given thyroid extract with marked benefit. He believes that this supplies the deficit of normal thyroid which the gout from too large a consumption of meat has taken away. —(D. WATSON, *The Lancet*, Feb. 11, 1895.)

General Gonococcal Infection.—Gonorrhoea, Wynn believes, should be regarded as a general malady since no organ can claim immunity from attack. In this it resembles pneumonia, acute rheumatism, cerebro-spinal fever, and scarlet fever. In three cases of gonococcal pyaemia he examined, pure cultures of the gonococcus were found in the blood before death. The primary seat in all cases was the urethra, one acute, and the other two chronic. General infection depends upon three factors (a) direct infection from the gonococcus (b) absorption of a toxin, gonotoxin, (c) mixed infection from other germs. The germs may circulate in the blood itself and locate in the different organs. Localization is rapid. Cases of gonorrhoeal pyaemia and septicaemia are rarely made out in life because we do not look enough at the urinary organs as a possible source of invasion. They differ in no way from the other forms except in their etiology. —(W. H. WYNN, *The Lancet*, Feb. 11, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

One Thousand Operations for Gall-stone Disease.—A study of mortality must be based upon some definite plan, and so far as the writers know, there is no settled method upon which a correct estimate of the death rate in any series of operations can be compiled. In our series of cases we have taken the view of the layman, that if the patient goes into the hospital alive and comes out dead, the death resulted from (or in spite of) the operation. It is to be understood, therefore, that in estimating the death rate, we have charged as a death from operation every patient who died in the hospital, without regard to cause of death or the time which elapsed between the operation and the fatal issue. This plan undoubtedly has a tendency to exaggerate the dangers of operation, particularly in common duct disease, where long-continued infection of the bile passages have resulted in blood changes, causing death at a late period. But it also illustrates the dangers of delay and the tendency to produce complications which operations may be unable to relieve.

In the 1,000 operations, there were 50 deaths in the hospital, or an average death rate of 5 per cent. In the benign series, there were 960 cases with 4.27 per cent. For malignant disease, 9 deaths in 40 operations, gives a mortality slightly in excess of 22 per cent.

When the disease was limited to the gall-bladder, including all non-perforating infections, the mortality was 2.44 per cent.; 573 cholecystostomies, mortality 2.46 per cent.; 186 cholecystectomies, mortality, 4.3 per cent.

Of the common-duct operations there were 137 benign with 16 deaths, 11.7 per cent.; 7 per cent. of these failed to recover from direct results of operation, and 4 per cent. did not regain sufficient strength to leave the hospital. Many cases operated upon were in desperate condition from prolonged icterus, anemia, etc. Operations for malignant disease are discouraging: 40 operations with 9 deaths in the hospital, and of those that recovered comparatively few received sufficient palliation to repay the immediate risk, suffering and expense.

Next to malignancy and acute perforative infections of the gall-bladder and pancreas, the most serious thing that can happen in gall-stone disease is involvement of the common duct of the liver. Contrast a mortality of 2.44 per cent. in 820 cases, where the disease was confined to the gall-bladder, with 11.7 per cent. in 137 cases where the common duct is involved.

In our cases cholecystectomy had nearly twice the mortality of cholecystostomy. It may be urged that the former operation was elected in the more severe cases and to a certain extent this is true, but not wholly so, as the more dangerous acute infections were nearly always drained by cholecystostomy. Inasmuch as in not a single instance did stones re-form in the gall-bladder when left, cholecystostomy must be considered the safe operation, cholecystectomy being reserved for certain cases in which cholecystostomy may be expected to furnish, in a considerable portion of cases, a partial or complete failure (W. J. Mayo and C. H. Mayo, *The American Journal of the Medical Sciences*, March, 1905).

Ptosia of the Kidney.—1. 40 per cent. to 80 per cent. of all women have a palpable or even movable kidney.

2. The causes of the condition seem to be lack of general muscular tone, anatomical peculiarities, or increase in the weight of the kidney, one or all.

3. The symptoms are a sensation, subjective or objective, of a mass moving from the flank into the abdomen, crises of kidney pain, a variety of nervous derangements from nervous dyspepsia to neurasthenia.

4. The diagnosis is made on the presence of the mobile tumor, the symptoms, and by ruling out kidney-stone, new growth and gall-stone.

5. Treatment should be: First, mental; second, development of abdominal and back muscles; and, last, if necessary, and no contra-indication exists, fixation of the kidney by operation.

6. The prognosis, after an operation, which is technically proper, is for a perfect cure. (*The Boston Medical and Surgical Journal*, March 2, 1905).

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

Vomiting of Pregnancy.—Martin divides the cases of vomiting in pregnancy into four groups: (1) Where the nausea and sickness are slight, with, at most, retching, occurring usually in the forenoon. This produces no constitutional disturbance and generally passes away about the time of quickening. (2) Where vomiting is frequent, occurring at any time of the day and resulting in failure of the health with marked emaciation. (3) Where vomiting is so constant and persistent that all food is rejected. Rapid emaciation follows, with possibly fever disturbances of the circulation, jaundice, dry tongue, delirium and threatened death. (4) Where organic disease is present and it is difficult or impossible to determine what share the pregnancy has in producing a dangerous or perhaps fatal result.

The simple nausea of the first group is physiologic and is of reflex origin due to hyperaemia of the pelvic organs. A mal position of the uterus may greatly aggravate the stomach symptoms. In the absence of organic diseases, hysteria plays an important role, and may resist all therapeutic efforts. Martin recommends morphia by rectum in the treatment of the less severe cases.

In the severe cases of the third and fourth groups, the induction of abortion must be considered. It should be done early, and as the responsibility should be a divided one, never without consultation. Close attention to hygienic living, especially in regard to exercise, should be enjoined. (*British Medical Journal*, Dec. 10, 1904.)

Suspension of the Uterus.—Beyea reports his experience in 465 cases of retrodisplacement of the uterus, treated by ventrosuspension. The cases were instances of retroversion of the third degree, where the fundus lies lower than the cervix; of retroversion of the second degree, where the fundus lies transversely across the pelvis, the fundus and the cervix being on about the same level; and retrodisplacement, complicated with laceration of the cervix and perineum. Acute cases are those resulting from parturition or accident and discovered within six months of their occurrence. Chronic cases are those which have existed longer than six months. In Beyea's experience, the former are rare.

In the chronic form, there is passive hyperaemia, hypertrophy and hyperplasia of the endometrium

and slight changes in the tubes and ovaries. Such cases often give a history of having been treated for nervousness, neurasthenia or nervous prostration. Menorrhagia, leucorrhoea and dysmenorrhoea result from the hyperaemia of the uterus and hypertrophy of the endometrium.

The treatment is surgical. A pessary may keep the uterus in position as long as it is worn, but it never cures the disease. It only produces irritation and does harm.

There are three classes of operations. (1) Ventrosuspension of the uterus. (2) External shortening of the round ligaments (Alexander-Adams operation). (3) Intra abdominal shortening of the ligaments. (Mann Gillingham.) Each has its strong advocates.

In the writer's experience of 465 cases, in eleven years, ventro-suspension has ever proved efficient and has never been the cause of abnormal gestation or complicated labor. The complications which are sometimes reported, Beyea believed to be produced by the particular method of suspension and should not reflect upon the operation itself. Ventrofixation and not ventro-suspension is done. While one operator errs on this side, another fails to gain a suspensory ligament of sufficient strength to cure the disease and the operation is condemned because of recurrence.

In making up the statistics of his method of doing the operation, Beyea received replies from 272 of 465 patients. Eighty-five per cent. (231) state that they have been completely relieved and enjoy excellent health. Ten and one-half per cent. (28) state that the greater part of the symptoms have been relieved, while but four and one-half per cent. received no benefit.

The backache was completely relieved in 79 per cent. of the cases; the headache in 83.5 per cent.; the nervousness in 69.5 per cent. Seventy per cent. have gained in weight. In 23 per cent. the improvement began immediately or very soon after the patient reached home; thirty per cent. improved in from one to five months; twenty-four per cent. in from six to eleven months and 12 per cent. after one year.

In regard to the important question of the influence of the operation upon gestation and labor, Beyea found that of the 153 married women 41 became pregnant after operation, several repeatedly, making 47 births. In but two cases (about the normal proportion) was there a prolonged labor. One death took place in the series, a mortality of less than one-fourth of one per cent.—(*Un. of Pa. Med. Bull.*, Nov., 1904.)

THERAPEUTICS AND PHARMACOLOGY

Under the Charge of

W. J. WILSON, JR.

The Principles of the Treatment of Pneumonia.—On one point I do not hesitate to be dogmatic. In presence of pneumonia we should be up and doing. Hopefulness is essential to our usefulness and a passive attitude is hardly consistent with our recent advances in pathology and pharmacology. The definite objects before us are: (1) To arrest the morbid process by other abortive measures than the missing antitoxin; (2) to restrict the invading host, though we cannot stop it; (3) to destroy or neutralize the toxins by the vital energies; and (4) to hasten their elimination by every possible help. For the shock of the invasion immediate recumbency, warmth, and a small dose of ether or brandy with hot water are indispensable, and some soothing draught, is most desirable, such as ammonium bromide with aromatic spirits of ammonia and from 5 to 10 drops of solution of morphine in chloroform water to prepare the patient for the active measures which cannot be delayed. A dose of calomel is to be administered at once and to be followed half an hour or an hour later with a senna draught. Cardiac treatment is our next thought. Arrangements must be made for the immediate supply of oxygen which is needed for continuous administration. If oxygen is worth administering in desperate cases and to the dying, why should it be neglected as a profitable adjunct to the active measures of the early stage? Pneumonia is *par excellence* the field for discussion of the merits of bleeding. The pain often severely felt on the side of the lesion is relieved so invariably by leeching that the most timid will feel justified in prescribing it, particularly as the relief is usually permanent, unlike that from the application of ice or of fomentations. So much impressed am I with its value, that I make leeching a routine of treatment. The stronger measure of bleeding from the vein may be used in some cases, but it is a more serious undertaking in the sick room and viewed all round is not so desirable as leeching. Sweating already invited by some of the previous measures might be promoted more actively by a hot air bath confined to the lower extremities or by Dr. Lancey Rochester's device of a hot mustard foot bath administered in bed; but internal medicine can do what is wanted without any unnecessary fatigue to the patient. I have given antimonial wine,

aconite, and green hellibore with good results, but now I trust to the free use of the ammonium citrate. To check excessive fibrin formation, citric acid is used, and also potassium iodide. Alcohol is considered a very important part of the treatment and may be given ad nauseam in whatever form the patient desires. Quinine is given and also strychnine.—(EVART, *The Lancet*, Jan. 21, 1905).

Dangers from Cathartics.—Conclusions: I desire:

1. To enter a protest against the very common practice of indiscriminately administering cathartics in acute surgical affections of the abdomen.

2. To emphasize the diagnostic importance of a careful and thorough examination of the abdomen at the earliest opportunity.

3. To urge the importance of placing the entire intestinal tract at rest in the manner described in the article.

4. To operate at once on all cases of mechanical destruction just as soon as diagnosis can be made.—(HARRIS, *Journal American Medical Association*, Feb. 23, 1905).

The Use of Bisulphate of Soda in the Treatment of Typhoid Fever.—Cannaday reports 85 cases in which bisulphate of soda, also known as monosodic sulphate, hydrosodic sulphate or acid sodium sulphate (Na HSO_4 in contradistinction to Glauber's sodii. sulphas or the disod. sulphate Na_2SO_4) was used. Meddingen reports this substance in a solution of one in 1500 is antiseptic to typhoid bacilli, while a solution of one to two hundred is germicidal in five minutes to the bacillus typhosis. Further experiments show that the chemical is a direct antidote to the toxins, while a solution of 1 per cent. used hypodermically on guinea pigs has produced no toxic effects. The bisulphate is used in treatment in the strength of $7\frac{1}{2}$ grains to the ounce of water, two ounces of this solution being given every two hours. The remainder of the treatment corresponds to the usual methods of handling the disease. The conclusions are that the bisulphate of soda is a non-toxic intestinal antiseptic; that it keeps the mouth clean, promotes digestion by its acidity, prevents tympany and lessens diarrhoea.—(*Therapeutic Gazette*, Feb. 15, 1905).

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIO-THERAPY.

Under the Charge of

A. P. BIDDLE.

A Study of Fifteen Cases of Erysipelas Treated by Injections of Antistreptococcus Serum.

—J. C. Ayer compares the results in fifteen cases of erysipelas treated by means of Marmorek's serum with those obtained in seventy-nine cases managed by the usual methods in vogue before the introduction of serum therapy. The conclusions reached are as follows: (1) That the administration of antistreptococcus serum shortens considerably the course of uncomplicated attacks of erysipelas. (2) That it tends to inhibit extension of the disease. (3) That it has a strikingly beneficial effect upon the general condition of the patient, reducing the temperature, pain and discomfort incidental to the disease. (4) That it rapidly reduces the pathological leucocytosis. (5) That it prevents or suppresses febrile albuminuria. (6) That its use is attended with no danger, even in large doses. (7) That the only disagreeable symptom referable to the serum observed by the writer is a transient eruption which occasionally occurs at the site of the injection. (8) That the efficacy of the serum treatment is in direct ratio to the length of time which has elapsed between the onset of the disease and the first injection of serum.—(*Medical Record*, Mar. 4, 1905.)

Melanoma.—Dr. Johnson gives the following conclusions and method of treatment:

1. Aside from the natural division into choroid and skin tumors, melanotic neoplasms, which from their diversity of origin are best called melanomata, show several varieties.

2. The commonest, and therefore most important, is that derived from soft naevi, which are endotheliomata of lymph vessel origin. Naevomelanoma whose histogenesis it is not possible to determine must be referred to the same origin.

3. A second variety exists with the same histological pictures which does not spring from naevi, and whose origin is directly traceable to endothelium, probably also lymphatic. This group includes melanotic whitlow and the malignant lentigo of the French.

4. The third division is truly epithelial in origin, although its existence has been denied. These tumors are of various types and show only a very slight local tendency to malignancy, a fact sufficient in itself to determine a cardinal difference from the melanoendotheliomata whose capacity in this connection can hardly be exaggerated.

5. A histological diagnosis is the only proper method of differentiation between the two.

It has been a matter of general belief that melanomata of any sort are best left to themselves, that surgical interference adds fuel to a flame already burning fast enough. This view is certainly correct as regards feeble attempts at removal, such as ligation, cautery or excision, worst of all curretting, which is simply criminal where melanoma is concerned. The X-rays have proved, in the main, disappointing.

There is hope in surgical interference if it is early and radical, even when dissemination has already occurred locally.

Naevi and melanoepithelioma give no trouble if thoroughly obliterated. The wounds should not be allowed to granulate, if possible to do without it, not only because granulation tissue offers so slight a bar to tumor growth, but because there is no means of knowing now that its endothelium may not join in the neoplasia.—(JAMES C. JOHNSON, M.D., *Journal of Cutaneous Diseases* for February, 1905.)

The X-ray Treatment of Ringworm of the Scalp.—The value of the X-rays in the treatment of ringworm of the scalp has now been established. By means of them not only can ringworm be successfully treated, but the time occupied in the treatment of the average case can be reduced to about one-quarter of that taken by any other method.

The principle of the treatment is simply the depilation of the affected areas by means of the X-rays, and not the destruction of the fungi by the rays, as repeated experiment has shown that the X-rays are neither bactericidal nor do they kill the ringworm fungi, and cultivation can be made from affected hairs, which have been caused to fall out by the rays. Until lately most workers were in the habit of producing the defluvium by repeated short exposures of five to ten minutes to the rays, with the scalp at a considerable distance from the anticathode of the X-ray tube. By this procedure it was sometimes necessary to give fifteen or twenty exposures to cause the defluvium. It is now recognized, however, that the hair may be made to fall out by a single or a couple of exposures without producing a dermatitis. To do this satisfactorily it is necessary that the dosage of the rays should be accurately measured, the quality kept as uniform as possible, and that cognizance should be taken of the condition of the atmosphere at the time of the exposure, as the rays act more rapidly when the air is dry.—(*British Journal of Dermatology*, February, 1905.)

DISEASES OF THE NERVOUS SYSTEM.

Under the Charge of

GUY L. CONNOR.

Myatonia Congenita.—Up to the year 1900, nothing was known of this disease. In September of that year Oppenheim (*Monatsschrift für Psychitrie und Neurologie*, vol. viii) described it as follows:

1. The condition is congenital, although it may not always be noticed immediately after birth.

2. The muscles most affected are those of the limbs—the trunk to a less extent.

3. Hypotonia or even atonia of the muscles is the most striking feature.

4. There is a weakness or loss of tendon reflexes.

5. The flaccidity is so great that the joints are abnormally moveable.

6. Active motion is always impaired, but in different intensity in different cases.

7. The muscles of the eye, tongue and throat escape.

8. Intelligence, sensation, and special senses, so far as tests can be made at so early an age, showed no disturbance.

9. Electrical investigation showed quantitative alteration even to complete disappearance of the reaction.

10. The pathology of this disease is to be sought in the muscles. The central nervous system is probably not involved.

Spiller's case died and a complete pathological examination was made of the body tissues including the brain, cord and peripheral nerves. The microscopic examination showed that there was an arrest in the development of the muscle fibres and that the central nervous system and the peripheral nerves were normal.

Conclusions:

1. Myatonia Congenita is a congenital disease with no family tendency.

2. The ophthalmological findings are negative.

3. It appears to be a muscular disease.

4. We may hope for improvement at least in many cases.—(W. G. SPILLER, University of Pennsylvania *Medical Bulletin*, January, 1905.)

Acute Hemorrhagic Encephalitis.—The staphylococcus pyogenes aureus produces in the meninges and brain substance of man a type of inflammation in which hemorrhage is prominent. The picture post-mortem in man varies from red softening or multiple ecchymosis and small abscess to frank and sometimes voluminous hemorrhage. The site of election for the hemorrhagic lesions is the subcortical region, supplied by the

long or medullary branches of the cortical vascular system. The histological picture varies from diapedesis and slight leucocyte emigration to abscess and acutely destructive hemorrhage with phagocytosis. Collections of mononuclear cells, phagocytic for cells and cell detritus, often quite obscure the acute inflammatory appearance. A history of antecedent disease is the rule. The syndromes, which are chiefly of sudden onset and rapid course (three to fifteen days), are pyaemic, meningitic, or cerebral in type. The cases of slower course are the most plainly cerebral.—(E. E. SOUTHARD and C. W. KEENE, *The American Journal of the Medical Sciences*, March, 1905).

The Epileptic Criminal.—We know the jurist has us to thank for his understanding of dipsomania, pyromania, homicidal mania, erotomania, kleptomania, hysterical assaults, and the "temporary insanity" so often mentioned in connection with suicide. That some abuse of these terms may exist, I cannot deny. But the recognition of the nature of fixed ideas and uncontrollable impulses has been an immense step forward in the interests of humanity. The next step is the recognition of borderland states in which the patient commits crime under abnormal stress, yet with all the appearance of sanity. It is conceivable that a man may know he does a criminal act, and yet so strong may the physical influence be upon him that his will can not determine his course with the freedom and responsibility of the average individual. This condition occurs in epilepsy; it is not constant in all cases, but approached by the majority. In or near epileptic seizures the reflective consciousness of the individual recedes to the vanishing point. When we admit the physical dangers of contagious disease, it is remarkable that at this late day so few voices urge the need of restraint of such irresponsibles as epileptics. The infinite gradations of this morbid process allow room for all the borderland states imaginable; here is the seed of major convulsions, or psychic outbursts, which may be harmful not only to the patient himself, but to innocent members of the community. These, it would seem just, should have grounds for civil suit when injured in person or property by epileptics or indeed by any other irresponsibles. In my judgment the suit should lie as much against the community as against the particular, but irresponsible (though criminal) agent.—(T. H. EVANS, *Medical Record*, February 25, 1905).

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Original Articles

INFECTION OF THE BILIARY TRACT.*

H. W. LONGYEAR,
Detroit.

During the last thirty years the increasing knowledge pertaining to the subject of bacterial invasion of obscure parts of the body and the consequent septic processes engendered thereby has, by means of modern methods of aseptic surgical technique, laid bare the secrets of many forms of heretofore obscure disease.

The advance in this line has been, probably, more marked in the abdominal viscera than in other portions of the body. The reason for this is doubtless due to the greater relative frequency of disease due to bacterial infection in this region, which frequency is explained by the fact that the viscera are so constructed as to permit of the comparatively easy invasion of pathogenic germs, either directly into the peritoneal cavity, as occurs so frequently via vagina, uterus and fallopian tube, or into a cul de sac, such as the appendix or gall-bladder, when, their discharge being prevented by reason of closure of the out-

let of the viscus by some pathologic process, they rapidly multiply.

There exists, in this way, three principal vulnerable points in the otherwise well protected peritoneal cavity, viz: the female genital tract, the appendix vermiformis and the biliary tract. The pancreatic ducts are also liable to the same invasion, but this occurrence is extremely rare as compared with the other three sources of dangerous infection, and, when present, is usually in connection with a bile tract infection, caused by a stoppage of the duodenal orifice of the diverticulum of Vater, as the duct of Wirsung and the common bile duct both empty their contents here together before the pancreatic and hepatic fluids pass into the duodenum. A distal occlusion would thus affect both systems of ducts. Acute infective pancreatitis, resulting in abscess of the gland, would likely ensue.

Since Lawson Tait exhibited to his astonished and unbelieving confreres his first specimens of fallopian tubes and ovaries removed because of infectious disease, the field in the work that he thus started has been gradually widening.

*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society, at Grand Rapids, May 27, 1904, and approved for publication by the Committee on Publication of the Council.

With the acceptance of Tait's views of the etiology of the pyosalpinx came the change in the point of view taken in the cases of so-called typhlitis and perityphlitis and perityphlitic abscess. The appendix was found to be the starting point of these inflammations and the further discovery was made that infection of its cavity was the etiologic factor in the disease.

The knowledge of gall-stones as a pathologic entity is almost as old as the science of medicine, but the scientific recognition of infection, *per se*, of the biliary tract is still in its infancy, and comparatively little reliable data on the subject could be found in text books or monographs until quite recently. A distinct advance in the literature of this subject is shown by the publication of the Transactions of the Congress of American Physicians and Surgeons for 1903, which gives the monographs of a number of some of the world's most distinguished physicians and surgeons, read at its meeting in a symposium on the subject of diseases of the pancreas, gall-bladder and bile ducts. These essays represent one of the most notable and interesting contributions to medical literature that has ever been produced by any medical society, the work, embodying, as it does, the most that there is known on these subjects up to the present date. Mayo Robson's third edition of "Diseases of the Gall-Bladder and Bile Ducts," just published, gives to the profession rare information on these subjects.

In the consideration of the subject of infection of the biliary tract the frequently accompanying condition of cholelithiasis must necessarily receive some attention. That gall-stones may be the direct result of infection has been proven quite conclusively, and yet we find that only a very

small percentage of gall-stone cases produce symptoms, consequently we must infer that either the nature of the infection which caused the growth of the stones must have been of a very mild character or that nature effected the elimination of the infective germs after the stones were formed. The latter supposition is probably correct, as many cases of biliary calculi come to operation in which no pathogenic bacteria are found in the bile. On the other hand, the presence of gall-stones, by constant irritation of the mucous membrane, cause a pathologic condition that is favorable to the introduction of pathogenic bacteria.

Notwithstanding these facts and that most cases of infection are attended by cholelithiasis, many cases come to operation in which gall-stones are supposed to be present previous to operation, but the operation reveals an infection only to account for the severe symptoms. Hence, as this field of abdominal surgery is opening up more and more, it is found that infection plays a greater part than was previously supposed.

Mayo Robson says regarding infective cholangitis: "It is usually due to gall-stones in the common duct, which favor the entrance of organisms from the intestines through the duodenal orifice, but anything causing obstruction of the common or hepatic ducts may lead to infection of the retained bile."

The combined symptoms of pain, fever and jaundice do not always signify the presence of a stone, but these symptoms do signify the presence of inflammation which may come from the occlusion of the hepatic or common duct by a stone, thus causing a stasis of a previously infected bile, or the very same combination of symptoms may result from any other cause that will temporarily occlude the

(Continued on page 192.)

The accompanying diagnosis chart is taken from Dr. Geo. E. Brewer's article on "The Differential Diagnosis of Diseases of the Gall-Bladder and Bile Ducts," read at the Congress of American Physicians and Surgeons at Washington, in May, 1903.

INFLAMMATORY DISEASE.

<i>Pathological Condition</i>	<i>Pain</i>	<i>Fever</i>	<i>Vomiting</i>	<i>Jaundice</i>	<i>Tumor of gall-bladder</i>	<i>Urine</i>	<i>Stools</i>	<i>Liver</i>	<i>Spleen</i>	<i>Ascites</i>	<i>Remarks</i>
(a) Cholecystitis subacute.	Present; paroxysmal during periods of cystic duct closure from stone or swollen mucous membrane	Present during attacks of colic.	May be present.	No.	Present during attacks of cystic duct obstruction.	Negative.	Normal.	Not enlarged.	Not enlarged.	No.	Tenderness over gall-bladder; tendency to recurrence; generally associated with stones in gall-bladder.
(b) Cholecystitis acute.	Acute paroxysmal radiating pain; extending to back and shoulder; may be very severe.	Present with chills and sweats.	Present; often severe.	No.	Present; tenderness; often muscular rigidity.	May contain albumin and casts.	Normal.	Not enlarged.	May be enlarged; (Sepsis)	No.	May follow typhoid or other septic diseases; onset often sudden; rapid development of severe symptoms resembling appendicitis; may be necrosis of walls of gall-bladder with perforation, local or general peritonitis.
(c) Cholecystitis chronic (empyema of gall-bladder).	Severe radiating pain at first; may disappear later; tendency to recur.	Present; severe at first, may diminish later.	Present at first.	No.	Present; with tenderness; may attain large size.	Negative.	Normal.	Not enlarged.	Not enlarged.	No.	Frequently follows acute cholecystitis; occasionally becomes quiescent, presenting practically no symptoms.
(d) Cholecystitis in previously diseased and contracted gall-bladder.	Present; often severe; paroxysmal.	Present; often with chills and sweats.	Present.	No.	No. (Occasionally present due to pericyclic exudate).	Negative.	Normal.	Not enlarged.	May be enlarged; (Sepsis)	No.	Generally tenderness over gall-bladder area, but no tumor; local peritonitis; diagnosis often extremely difficult.
(e) Cholangitis of hepatic and common ducts.	May be absent; generally present when obstruction exists, or severe infection; tenderness and pain over liver in intra-hepatic cholangitis.	Present; chills; sweats; severe prostration; general sepsis.	Present.	Present; variable.	No.	May contain bile pigment, albumin and casts.	May be clay colored.	Enlarged.	Enlarged; (Sepsis)	No.	Often follows severe infections of gall-bladder generally associated with stones in common or hepatic ducts; severe sepsis; generally fatal in virulent infections (streptococcus).

common duct, while pathogenic germs are present in the bile. Old adhesions, causing a kink in the duct, congestion of the duodenal opening of the duct from indigestion, malignant tumors in this region, enlarged lymph nodes, etc., may act in this manner. The germs finding access to the duct from an unusual patency of the duodenal orifice, may lodge there indefinitely without inducing any characteristic symptoms if the flow of bile be unimpeded, but once let this free flow be retarded so that the rapidly multiplying bacteria are not washed away, and the characteristic symptoms caused by the resulting ptomaine poisoning, tension of the parts, and absorption of bile, quickly appear. Cases of this kind are frequently treated for malaria, as the sharp attacks of chills and fever are very similar to those produced by the plasmodium. These attacks may be of any grade of severity, from a condition in which there may be very slight but rarely constant, rise of temperature, with little or no pain, jaundice hardly perceptible, foul breath, constipated bowels, etc., up to one in which the most violent symptoms are manifested, all pointing plainly to an affection of the gall-tract.

This great difference in degree of symptoms is probably due mainly to two factors, viz: (1) degree, or location, of occlusion of the bile duct, and (2) variety of infection. An infected gall-bladder with an occluded cystic duct and patulous common duct would tend to produce empyema of the gall-bladder with the common symptoms of abscess formation; fever, which would be constant during the closure of the duct, with tenderness in the region of the gall-bladder, but there would be no hepatic hypertrophy or jaundice, though severe paroxysms of pain might occur during the acute stage.

In cases of streptococcus infection the symptoms present would be more active, and those of peritonitis would be liable to soon manifest themselves. In gangrene of the gall-bladder, especially when the viscus is imbedded in dense adhesions and situated well up under the right lobe of the liver, the symptoms may be quite misleading and the cause obscure, as this condition may be attended by a temperature which is frequently depressed below normal for some length of time with occasional sharp rises above the normal point, while tenderness to pressure will not be very marked.

In cases of obstruction of either the common or hepatic duct the intensity and character of the symptoms will be governed largely by the degree and duration of the closure of the duct by the obstruction. A partial closure of the outlet of the common duct by a duodenitis and resultant cholangitis, will cause simple jaundice without fever, in cases in which no infection of the bile is present, and the patient may continue in this condition for several weeks with no symptom but the jaundice to indicate any interference with the hepatic function; but add to this condition a previously infected bile tract and the patient immediately becomes very ill, probably with chills, followed by a sudden sharp rise of temperature, severe pain, referred usually to the epigastric region, but frequently to other more remote parts, such as the sternum, right shoulder blade, etc. Jaundice and enlargement of the liver will begin to be apparent after 24 to 48 hours and will persist thereafter, according to the completeness of the occlusion. The temperature apex is quite marked in these cases, being very sharp, owing to the quick subsidence of the fever after the first sharp rise. Frequently a rise of three to four degrees will take

place in an hour or two, and this will as suddenly subside, registering normal or nearly so in two or three hours after. The subsidence to normal will remain if the duct reopen and continue patulous, but if, as is frequently the case, the duct is closed again in a day or two from some indiscretion in diet, or other cause, the same sharp rise again takes place with the accompanying pain.

The two case charts here presented illustrate this characteristic of temperature in gall infection. (Pp. 196-201.)

The hepatic enlargement often manifests itself with each attack, subsiding slowly with the disappearance of the fever. In cases in which the occlusion persists for some length of time, the hepatic hypertrophy becomes so marked that the organ may be thought to be a "floating liver."

The most common variety of infective germ is the colon bacillus, such frequent occurrence is no doubt due to the fact that it is always present in the alimentary tract and thus stands ready to enter the duct as the favorable opportunity offers.

The staphylococcus and streptococcus are also occasionally found to be the invading germs, and intestinal worms have been known to enter the common duct and cause an infection with all the symptoms of obstruction.

The typhoid bacillus probably plays a more important part as an etiologic factor in cases of mild infection than is realized by those who have not made careful and extended bacteriologic studies of cases of infected bile. Secondary infections after typhoid fever, with protracted low temperature and other symptoms of a mild character which resist medicinal treatment for a long time, are frequently due to the entrance of the typhoid bacillus

into the bile tract. This form of infection frequently persists for many months without causing symptoms of a characteristic nature to direct attention to the biliary apparatus. Patients thus infected may recover sufficiently from the initiatory disease to be up and about, though continuing weak and anæmic from the effects of the infection, until the constantly lessening calibre of the bile ducts, due to the subacute cholangitis induced by the presence of the bacillus reaches a point where the free flow of the bile is impeded, when the usual symptoms of occlusion occur. At first these manifestations are liable to be of such a mild character that they are attributed to disorders of digestion and treated as such, until a complete stoppage occurs with its attendant pain, fever and jaundice. If the common duct, in such a case, be large and its duodenal orifice patent, it is possible for the infection to do much damage to the gall-bladder and cystic duct before active symptoms of occlusion occur. It is thus possible for this low form of infection to result in partial or complete atrophy of the gall-bladder and cystic duct without producing any symptoms of a violent or apparently serious character. When it is remembered that it is possible for the typhoid bacillus to continue its existence, almost indefinitely when favorably protected, the long continued and slow destructive action of this form of infection in this locality is explained and light is thrown on many cases of obscure hepatic disease.

The prognosis in any case of infection of the biliary tract is necessarily grave, whatever may be the nature of the invading germ or the degree of manifestation.

Treatment should be both medicinal and surgical. Internal medication is of

great value in palliative treatment in all cases, and may act curatively in cases of recent infection, as by it the patency of the ducts may frequently be preserved and the bile be made more free as well as more fluid in character, thus facilitating drainage through the natural channels. Carlsbad salts, phosphate of soda and other alkaline remedies are often of much service for this purpose. The writer has found the succinate of iron a useful remedy in some cases of catarrhal cholangitis. Diet, also, has much to do in the treatment of these cases, as indiscretion in the taking of food frequently brings on attacks of occlusion through the agency of a duodenitis resulting from the contact with its mucous membrane, of imperfectly digested or irritating articles of food.

Surgery offers the only radical curative treatment and should be resorted to when medicinal measures fail to give relief. Surgery should be called to the aid of these cases as soon as possible after reasonable medication has been tried and found wanting, and without waiting until such pathologic changes in the ducts, gall-bladder and surrounding tissues have occurred as would render such operative work futile, or, at best, a forlorn hope.

In simple infection, without gall-stones, the operation indicated—that of abdominal section with drainage of the gall-bladder—is one of the safest procedures in abdominal surgery when uncomplicated by any of the numerous sequelæ that are the usual result of neglect and procrastination. When, however, long continued infection has caused inflammatory exudates to be thrown out around the gall-ducts and an atrophied bladder, often binding them together with intestines, stomach and liver, the operation may become one of exceeding difficulty and

fraught with the greatest danger to the patient. The gall-bladder having considerable latitude of location, being found sometimes in the median line of the body, high up under the ensiform cartilage, and at others perhaps embedded in dense adhesions, well back under the right lobe of the liver, the search for it when atrophied and surrounded by such adhesions is one of the most difficult and delicate operative procedures. Such severe and dangerous operations may be avoided by early recognition of the infection and prompt operation. The presence of gall-stones complicates very greatly the case that comes to operation late, but to a much less degree when operated upon early.

Some interesting questions come up in carrying out the details of the treatment of these infected gall-bladders. Should the gall-bladder be extirpated and the parts closed without drainage? I believe this to be an exceedingly hazardous operation in all cases in which occlusion of the common duct, from a cholangitis has been present preceding operation, as the mucous membrane of the duct will still be liable to engorgement which, if it be sufficient to cause obstruction, would be almost surely fatal. Sudden deaths following extirpation are doubtless mainly due to this cause. In many cases a long continued drainage is necessary to permit the narrowly contracted ducts to recover their normal calibre.

What is the best method of drainage? The method must suit the conditions. A large gall-bladder may be sewed to the peritoneum at the abdominal incision, a glass or rubber drainage tube inserted, and the wound in both bladder and abdominal wall closed closely around it. If, however, many adhesions be present, the gall-bladder atrophied or displaced

and not to be brought forward to the abdominal wall without tension, the tube should be inserted into the bladder, the wound closed around it, and then iodoform or aseptic gauze packed firmly around the bladder and tube, and brought out through the abdominal wound, with the tube projecting from the middle of the packing. The great amount of serum poured out through a large gauze packing of this kind has a very beneficial effect by rapidly depleting the previously engorged tissues.

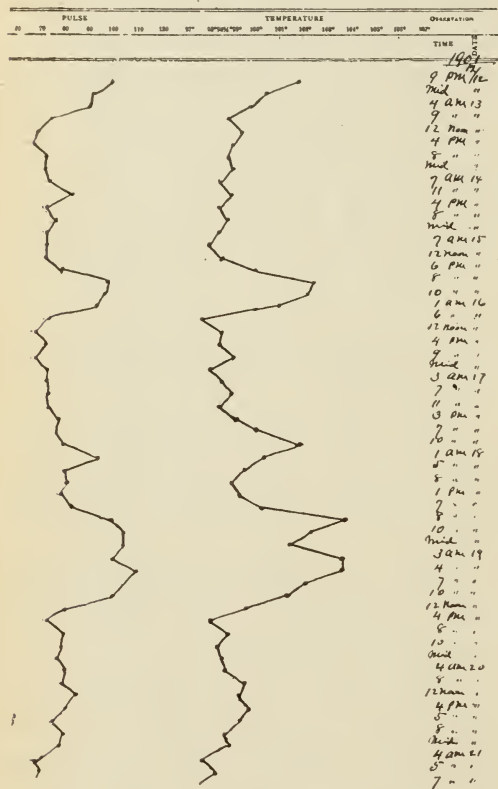
How long should such a drain be maintained? The gauze may be removed in from four to ten days, care being taken to leave it long enough for nature to have thrown out a strong lymph wall around it, so that the longer time is usually preferable. The tube should be kept in as long as there is any tendency to febrile action or any sign of obstruction of the duct. Logically, the drainage should be maintained until the bile shall be free from infective germs, but my own experience has taught that this is not necessary or, in fact, sometimes possible, as, in the first place, a long continued drainage seems to allow the ducts to acquire an amount of toleration sufficient to permit of the presence of the infection without causing a return of the inflammatory obstruction. Then again it is impossible in some cases to rid the bile of the invading germs. The tract may be washed out and disinfected from the fistula in the gall-bladder to the duodenum, but in a few hours' time the bile will be found to be as full of them as ever, as the hepatic duct and the system of smaller ducts above emptying into it, are untouched by the disinfectant and continue to furnish new and active germs to replace the ones washed out. The writer made a large

number of experiments on two cases of which a report will follow, and proved quite conclusively to himself that complete disinfection of the biliary tract is an impossibility, owing to the reason already stated. The experiments were made with bile infected in one case with the typhoid bacillus and in another with the colon bacillus. A number of germicides were tried, in the laboratory, on the infected bile of both of these cases and, as a result of those experiments, acetozone solution in sterile water, gr. viii to Oi was found to be the most efficient, and as it is practically non-irritating to the parts, it may be used freely for the purpose of irrigating the bile tract. Tincture of iodine 3i to Oi acted nearly as well as the acetozone, but it cannot be used as freely, as it is somewhat irritating to the gall-bladder and ducts.

I have selected from my case books the following four cases, each being typical of a variety of infection of the biliary tract:

CASE I. Typhoid bacillus infection. Male, 64 years of age. Had typhoid fever early in 1898, from which he made a slow recovery and remained anæmic and debilitated with symptoms of severe indigestion and frequent bilious attacks until the early part of June, 1899, when he was taken, while traveling, with a more violent attack than heretofore, of the supposed indigestion, the pain, which was in the epigastric region, being very severe and incessant for several hours, and vomiting almost constantly. Apparently there was no fever with this attack, but the temperature was not tried. No jaundice or fever was present when the patient was seen by the writer two days afterwards. Six months later, December 24th, 1899, another attack occurred while the

patient was under the observation of the writer. The pain came on suddenly after an indiscretion in diet, and was severe and paroxysmal in character, in fact, quite characteristic of gall-stone colic, and was so diagnosticated. No fever or jaundice. Patient in bed four days. Hypodermic use of morphine necessary for relief of pain at onset of attack only. An-



*Temperature & Pulse for 10 days
previous to operation*

CASE I—Typhoid Infection.

other attack of about the same mild character occurred one month later, January 30th, 1900, patient being confined to bed three days. After this he was free from any severe paroxysms of pain, though continuing weak and debilitated, until November 28th, 1900, (10 months interval) when a severe attack occurred, complicated by an influenza which confined him

to the house for ten weeks. During this time he had several mild attacks of pain, each paroxysm being attended by a rise of temperature of from one to three degrees and persisting for a few hours only, slight jaundice also appeared with each attack. After recovery from this illness the patient spent the summer (1901) at Carlsbad, returning in the fall feeling and looking very much improved and having had no paroxysms, except a mild one, on the voyage over. He was now free from pain, again, for a period of nearly ten months, when on exposure to cold, precipitated an attack early in December following, which was attended from the beginning with an irregularly intermittent type of fever and gradually increasing jaundice, so that operation was decided on and the same performed December 22nd, 1901. Adhesions were found binding together all the viscera around the site of the gall-bladder, the lower end of which was discovered projecting through a mass of inflammatory tissue situated back under the margin of the left side of the right lobe of the liver. This was incised and the viscus found to be empty, containing neither bile nor gall-stones. Its cavity was very small and the walls were contracted in two places by cicatricial circular bands, dividing it into three compartments. The entrance to the cystic duct could be felt, after dividing these septa in the bladder, but a probe could not be passed. As the patient was too weak to bear any further surgical effort to find the obstruction, it was decided to trust to drainage for the immediate future, and do a second operation if necessary. A rubber tube was sewed into the gall-bladder and this organ stitched to the abdominal wall. A large amount of iodoform gauze was packed into the space

below the right lobe of the liver and the gall-bladder, and brought out of the incision around the tube. The patient suffered some from shock, but rallied well after a few hours. A great quantity of serum, only, continued to ooze through the packing until the night of the second day after the operation, when a free flow of bile suddenly appeared. The temperature, which had been up from one to two degrees since the operation, now dropped, and during the following ten days registered from 98° to 99° F. The jaundice rapidly disappeared and the patient suffered no pain except that from the presence of the gauze packing, which was removed on the twelfth day. As soon as the bile appeared, a sample was sent to the Detroit Clinical Laboratory, for a bacteriologic examination. The report named the colon bacillus as the invading germ, but later and more extensive tests made with a number of specimens, determined the micro-organism to be the typhoid bacillus.

The drainage produced a rapid improvement in the condition of the patient in every way, but frequent examinations of the bile showed no change in the infected condition of the secretion, so that in the fifth month of the drainage it was decided to attempt to disinfect the bladder and ducts by injecting germicidal fluids through them. At first a solution of tincture of iodine 3i to Oi was used daily for several days, but was discontinued as it caused irritation, and the use of acetozone solution, gr. viii to Oi was commenced, and continued until the closure of the fistula.

A number of interesting facts were noted regarding the irrigation. The fluid passed readily through the bladder and common duct, into the duodenum, at

the rate of about a pint in half an hour. If the flow were allowed to pass into the bladder too rapidly it induced a pain referred to the left side of the sternum, similar in character to the pain experienced previous to operation. The immediate effect of the douching of the parts, as expressed by the patient, was beneficial, due apparently to the allaying of irritability of the mucosa of the tract. The fountain syringe was used, with the bag about a foot above the fistula.

Bacteriologic examination of the bile, immediately after the use of the acetozone, showed a diminution in the relative number of the bacilli, but after the flow of the bile had become well established again, say in three or four hours, the amount of infection and also the activity the common duct by a duodenitis and remained the same constantly. The occurrence of several slight rises of temperature, accompanied by mild pain in the region of the affected parts determined the continuance of the drainage for a period of six months, during the latter part of which time the patient was attending to his business, suffering only from the inconvenience of the drainage. Before allowing the fistula to close, the opening was plugged with the tip of a small olive-pointed bougie, thus preserving the patency of the way to the bladder, in case the forcing of the bile through its natural channel should, from some occlusion of the common duct, cause pain or rise of temperature. No such symptoms being observed, the plug was removed after two weeks' trial, and the fistula promptly closed.

Nearly a year after its apparent permanent closure it reopened after several days of slight fever during an attack of a mild influenza. A little bile and some pus discharged. It was disinfected daily with

the acetozone solution, and closed again in a few days without any further symptoms. The patient has gained steadily in health since the operation and has added about twenty-five pounds to his weight.

CASE II. Colon bacillus infection. Female, 45 years old. Mother of twelve children, the youngest $1\frac{1}{4}$ years old, which was nursed till present illness began. No menstruation since the last birth.

Began to have irregular attacks of fever, preceded by chill each time, about January 25th, 1901. Febrile attacks became more and more frequent until about February 15th, when fever began to be continuous with irregular exacerbations ranging from 100° to 105° F. No paroxysms of pain at any time and no marked tenderness anywhere. During the first two weeks of the attack the stools were light in color, but afterwards became normal. Urine dark brown since beginning of attack.

Examination March 22, 1901, by the writer, in consultation with the family physician, Dr. F. N. Henry. Skin over entire body mildly jaundiced; tongue dry and brown; pulse 120; temperature 103.2° F. Liver dullness extended from the eighth costal cartilage to the umbilicus where the edge of the organ could be easily palpated. Its surface felt smooth, and the whole liver could be moved to a considerable extent without causing pain. Tenderness in region of gall-bladder. Right kidney movable and displaced below ribs. Pelvic organs normal.

Diagnosis: Infection of the biliary tract with partial obstruction of the common duct, probably by pressure from some new growth. Exploratory operation advised.

Operation at Harper Hospital March 24th, 1902. Incision through right rectus muscle, beginning at level of umbilicus and extending downwards two and a half inches. On completion of the incision the fundus of a large distended gall-bladder rose into the opening. This was pushed aside and further examination made in the region of the ducts, where nothing abnormal could be found, although, owing to the immense size of the liver, a satisfactory palpation of the ducts could not be accomplished. To test the permeability of the common duct, the gall-bladder was grasped by the fingers and steady compression made for a short time, which resulted in very perceptibly diminishing its contents. Palpation indicated absence of calculi in the bladder, and no adhesions. The organ was then sewed to the parietal peritoneum at the upper angle of the incision, the latter closed completely and the bladder incised, evacuated, and its interior thoroughly examined. No stones were found. The bladder wall was thick and oedematous throughout. A rubber drainage tube was inserted, and held in place by one silk-worm gut suture passed through abdominal wall, edge of gall-bladder and margin of tube, and the balance of the wound closed by silk-worm gut sutures.

A culture on blood serum was made from a specimen of the bile taken at the time of operation, and the report from Dr. Joseph Sill, of the Detroit Clinical Laboratory, was as follows: "Culture shows a bacillus having the morphology and staining properties of the colon bacillus in pure culture."

The patient's temperature immediately preceding the operation was 102.8° F. The day following, it fell to 99.4° and

soon afterwards became normal and remained so. The tongue soon became moist and less coated and the jaundice rapidly decreased. The great hypertrophy of the liver lessened perceptibly day by day, and, by the time the patient left the hospital, four weeks after operation, had assumed its normal proportions. The flow of bile was very free, and during the first week an attempt was made to measure the quantity, but without entire success, as much of it leaked out around the tube. However, the first 24 hours twenty-two ounces were passed through the tube.

A number of bacteriologic examinations of the bile were made by Dr. Sill, and the colon bacillus always found. Many experiments were made at the Detroit Clinical Laboratory, with different reagents with a view of their use in irrigation of the infected bladder and ducts, and the same conclusion arrived at as was reported in the previous case which was infected with the typhoid bacillus. Daily irrigations were made with the acetozone solution, gr. viii to Oi while the patient was in the hospital, and with apparent beneficial local results. The drainage tube was left in when the patient was discharged from the hospital, and she was instructed as to its care.

On July 1st, following—11 weeks after the operation—the patient presented herself at my office with the drainage tube still doing duty. She looked badly, being cachectic and slightly jaundiced, but having no fever, and complained of pain and a swelling in the epigastric region. A very superficial examination was necessary to reveal the presence of a rapidly growing nodular tumor—apparently a sarcoma—situated between the umbilicus and sternum and apparently lying partly

under the latter. The growth, no doubt, was the original cause of the partial occlusion of the common duct, and as a small mass, was situated up under the enormously enlarged left lobe of the liver, which prevented its discovery at the time of operation. The patient died of exhaustion late in August following. The case was remarkable as illustrating the severe systemic symptoms which may result from a partially occluded, infected duct, with absence of local pain.

CASE III. Infection due to cholelithiasis. Female, 40 years old. Mother of two children, oldest ten years of age. Operation on cervix and perineum in September, 1901, at which time patient gave a history of having had digestive disturbances at various times and had been under treatment by a gastro-enterologist for the same.

In January, 1902, began to complain of attacks of pain after eating and returned to the care of the stomach specialist, who treated her for several months without benefit. In October following she came under the care of Dr. E. A. Chapton, who recognized the trouble as gall-stone colic.

At first there was no temperature or jaundice but the attacks of pain soon became more frequent and severe, when the symptoms appeared, and, the writer being called in consultation, advised immediate operation.

The liver was somewhat enlarged and the gall-bladder appeared distended and was sensitive to touch. Operation at the Woman's Hospital October 26th, 1902. Incision through the right rectus. Gall-bladder not adherent, largely distended, thick cedematous walls. It was first sewed to the peritoneal incision and, after closing the remainder of this—thus insuring the closing of the peritoneal cavity

to protect it against possible contamination—the bladder was incised. Instead of bile appearing there was evacuated about two ounces of thick clear mucus. On inserting the finger, gall-stones could be felt through a tough intervening wall of tissue. Being then uncertain of the exact condition, the peritoneal stitches were all removed, when, with the finger inside the cavity in the bladder, the situation was clearly made out, and after packing around the bladder with gauze, the dividing wall was punctured with forceps and the opening dilated. This gave entrance to the gall-bladder cavity proper, and was found filled with calculi and bile. Thirty-two stones were removed, the last eight being contained in the common and cystic ducts and removed quite easily by pressing them backward into the bladder with the finger on the outside of the duct. The gall-bladder was again stitched to the peritoneum, after removing the gauze, a tube inserted, and the wound closed with silk-worm gut sutures, one of which passed through drainage tube and edge of bladder incision. No bacteriologic examination of bile was made.

Recovery was rapid, all symptoms subsiding quickly after the operation. Drainage was continued for six weeks, when, no symptoms contraindicating, it was removed and the fistula allowed to close, which it promptly did.

Patient was perfectly well for six months, when, after a journey and some dietetic indiscretions, she experienced some pain and feeling of fullness in the region of the gall-bladder. Her temperature was 100° , and the scar at the site of the fistula was found protruding and soft. This was incised and a small amount of pus evacuated. This was immediately followed by a flow of bile, which con-

tinued off and on until October 8th, 1903, when closure of the fistula by operation was attempted. The fistula was enlarged by funneling out the cicatricial tissue from the skin through and into the bladder. The bladder was then thoroughly examined and irrigated. Considerable amorphous material of a dark brown color, apparently a deposit from the bile, was washed out, but no calculi found. The wound was closed with deep silk-worm gut and superficial buried kangaroo-tendon sutures. The temperature immediately rose and, for four days, ranged from 100° to 101° , and the patient complained of pain and fullness at the seat of operation, which appeared red and tense. On the fourth day of the wound opened a little pus was discharged, and the next day bile appeared on the dressings. After this the temperature became normal. The fistula continued to discharge bile, with occasional traces of pus, a small rubber drainage tube being used to prevent its entire closure.

In December following, the use of acetozone, (gr. viii to Oi) was commenced, and continued twice daily. The drainage tube was removed in January and the fistula allowed to close from the bottom, by opening the orifice from time to time by dilatation and incision, thus keeping it sufficiently patulous for the use of the acetozone solution. At present it is closed and has been so far for two months. If it reopens the gall-bladder may have to be extirpated, or cyst-enterostomy made to effect a cure.

The long continued drainage of this case with its incidental discomfort to the patient, led to the trial of several devices for collecting the bile and preventing the soiling of clothing and the saturation of dressings. None were satisfactory, so the

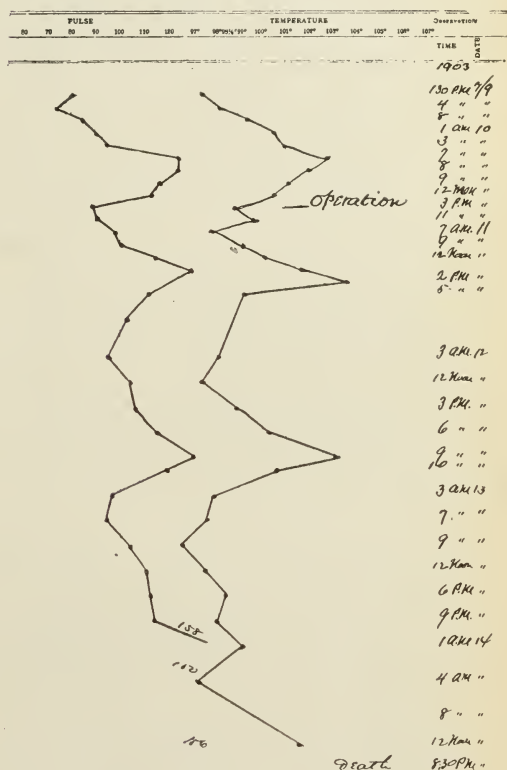
writer devised the appliance here shown. It is not unlike some colotomy pads but has the advantage, for this purpose, of having a thin, circular edge of rubber which presses sufficiently into the skin, around the fistula, to direct the flow of the bile from the skin into a small tube which conveys it into a rubber bag, which can be hung in a pocket attached to the clothing. This device worked perfectly and was a great comfort to the patient, allowing her not only to escape the annoyance of an occasional saturation of clothing with bile, but obviated the necessity of having the cumbersome dressings necessary to collect the immense amount of bile that sometimes flows from such fistulæ.

CASE IV. Gangrene of the gall-bladder; infection due to gall-stones ulcerating through colon.

Male, physician, 42 years old. Had suffered for sixteen years with frequent attacks of severe colicky pain in the epigastrium. Had consulted several brother physicians, among them a gastro-enterologist, but a diagnosis of gall-stones had never been made. Gastric lavage frequently gave relief during an attack, and this, with other treatment applied to the relief of the stomach symptoms, comprised the general course of treatment. Had had little or no fever with the attacks, and no appreciable jaundice, although the skin frequently assumed a bronzed color. His temperature was usually subnormal during the attacks.

The writer first saw the patient at Harper Hospital September 9th, 1903. He had had severe pain before coming to the hospital, but this had subsided. Nausea and hiccough persistent, and vomiting prevented only by frequent gastric lavage. Eyes and skin showed mild jaun-

dice. Examination showed no hepatic enlargement. Acute sensitiveness in the median line just below the ensiform cartilage, but none in the region of the gall-bladder or under the margin of the right lobe of the liver. Blood examination by Detroit Clinical Laboratory: "The smear shows a marked polynuclear leucocytosis—polynuclears 95 per cent. No malaria



Temperature and Pulse before and after Operation

CASE IV—Gangrene of Gall-Bladder.

organisms could be found. The leucocytosis indicates a severe toxæmia, probably the result of infection."

Diagnosis of gall-stones, with infection of the biliary tract, was made, and operation advised if symptoms did not abate within twenty-four hours.

Temperature at 1:30 P. M. was 97.4°; pulse 78.

September 10, 7 A. M., temperature 102.6°; pulse 126.

September 10, 3 P. M., temperature 98.2°; pulse 88. Nausea and jaundice now marked.

Operation at 4. P. M. Incision at first through right rectus, 2½ inches long, and later, extended from upper angle, two inches to the right. Stomach, duodenum and colon were found matted together by old, strong adhesions and all grown fast to the entire lower margin of the liver, the colon forming a continuous line with the entire right lobe of the liver. No sign of the gall-bladder was visible. A hard nodule being discovered in the liver tissue about an inch above the adherent colon and about three inches to the right of the upper angle of the incision; after extending the latter toward it, it was incised and two large gall-stones removed. These, with the bile which escaped continually from the opening, had a strong fecal odor.

With the finger and probe, an opening was discovered passing into the adherent colon. The surrounding parts being protected by gauze, the bowel was dissected away from the liver and the fistula closed by two layers of Lembert sutures, the first of cat gut and the second of silk. An effort was then made, with the sound, to discover the duct leading into the cavity that had contained the stones, but without success, and, as the drainage seemed free, it was deemed best to rely on a continuation of it without farther dissection. A rubber tube was sewed into the cavity, gauze packed freely around it and the wound partly closed with silk-worm gut sutures. Drainage of bile through the tube continued very free, after operation, but the symptoms continued practically unchanged, no relief

following. The temperature remained nearly normal till the next afternoon, when it suddenly rose and dropped in the manner characteristic of gall tract infections. The record is as follows:

		Temperature. Pulse.	
September 11 (day after operation)	7.00 a. m.	97.6°	100
September 11	2.00 p. m.	102.6°	128
September 11	6.00 p. m.	99°	112
September 12	3.00 a. m.	98°	96
September 12	9.00 p. m.	103°	130
September 13	9.00 a. m.	96.5°	112
September 13	9.30 p. m.	98°	114
September 14	1.00 a. m.	97.2°	158
September 14	4.00 p. m.	103°	170

Died at 8:30 P. M. Post-mortem examination made the day after death showed the following conditions: All viscera adjacent to the under surface of the liver were matted together by old, strong adhesions, and adherent to the liver. The inside of the stomach was carefully examined and found to be normal and free from scars. The liver was incised in a number of places, but no abscess or other abnormality discovered. The cavity in the liver, which had contained the gall-stones, was found to communicate by a small, short duct, with a very small, contracted gall-bladder, situated far back under the right lobe of the liver, having thick walls and being completely surrounded by dense adhesions, from which it was detached with difficulty. Three facettted stones were found in its cavity and the thickened walls were tightly drawn around these. The bladder contained no bile. On removal, the walls of the bladder, as well as some of the tissues immediately surrounding it, were found to contain a number of gangrenous spots.

Here, then, was a case in which a chronic chole-cystitis, induced by gall-stones, and doubtless constantly attended

by a mild form of infection, had existed for a number of years and had never been properly diagnosed, although the findings at operation and autopsy indicated an intensity of inflammatory action in and about the biliary apparatus that must have caused symptoms that should have indicated the true nature and locality of the disease. That a case with such extensive cholecystic disease with gall-stones could have been treated for years for gastric disease, by several physicians of good standing in the profession, should act as a warning against the ancient habit of making slipshod or snap diagnoses. The employment of up-to-date methods and a careful analysis of symptoms should avoid all such catastrophes, as in this case served to untimely cut off this physician's life.

CONCLUSIONS: Infection of the biliary tract may occur either with or without the presence of gall-stones, and may be due to a variety of causes producing

symptoms which, while frequently obscure, are always sufficiently characteristic to permit of a diagnosis by careful analysis. Medical and dietetic treatment of especial value in cases of recent infection, where by maintaining a patulous duct and fluid condition of bile, good drainage thus secured may result in recovery, and in some cases where operation is contraindicated because of other complicating diseases, extreme debility, etc.

Operative treatment, to be of greatest service, should be resorted to early—before gross pathologic changes have occurred in and around the ducts and bladder.

Discontinuance of drainage should be tentative, so as to provide for its re-establishment if the ducts are found inadequate.

Acetozone solution, a safe and efficient disinfectant for irrigation of the tract, and should be used prior to closure of fistula.

EXTRA-UTERINE PREGNANCY.*

MORTIMER WILLSON,
Port Huron.

The name defines itself, and, of course, indicates the main feature of the pathological condition.

Aside from the mechanical accidents and impediments arising from the development of the ovum in its unnatural position, there are occasional phenomena associated with this condition whose consideration should be of interest to all

students of the processes and accidents of procreation.

Albuminuria gravidorum and eclampsia are of perennial interest to the pathologist and obstetrician.

Holt, in 1900, reported a case of eclampsia in a woman with abdominal ectopic pregnancy. This case would seem to militate against most of the theories formerly held as to the etiology of nephritis of pregnancy, and to strengthen the belief that the causative agent or agents are the results of embryonic tissue metabolism, which in some cases find too

*Read before Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 26, 1904, and approved for publication by Committee on Publication of the Council.

feeble anti-bodies in the maternal tissues and blood to neutralize their toxic effects.

The vomiting of pregnancy also is common in these ectopic cases. Here again the old theories of nervous reflexes from pressure or over-activity of the uterine tissues has largely obtained. How shall we account for the vomiting in these ectopic cases? The same tissues are not involved in over-activity, the same nerves are not subject to pressure, there is no pressure on the cervix.

It is highly probable that the toxins resulting from embryonic tissue changes are the efficient cause of this disorder in both normal and ectopic gestation. In hyperemesis the clinical picture of toxine poisoning is very perfect.

The question of the place where impregnation ordinarily takes place can not be determined by these cases, as it is possible the ovum might be arrested and wait there the invasion of the male cell. Henson claims that all conceptions take place outside the womb at the fimbriated extremity of the tube. Bischoff taught that the ordinary place of impregnation is the ovary. The weight of opinion of authorities is in favor of the tube as the seat of fertilization of the ovum.

The uterine mucosa is first, that of the tube second, and the serous membrane or peritoneum third and last, in suitability for the development of the impregnated ovum, and it is not unreasonable to suppose that many impregnated ova perish in the less suitable places where from defect of tubal morphology or function they have been located.

The cause of the arrest of the ovum is some mechanical obstruction, such as stenosis, sacculation, diverticula and adhesions causing more or less bending or constriction of the tube.

Some authorities deny the possibility of primary abdominal and ovarian pregnancy. Kelly regards it as settled that no well proven case of primary abdominal pregnancy is on record. It is not well to say it has never occurred.

Many authorities have denied the possibility of ovarian pregnancy. Bland Sutton had never believed in its occurrence till he went to Amsterdam in 1901 and saw the specimens of Tussenbroeck, with sections of foetus and ovary showing villi.

Undoubtedly most of the cases reported as abdominal and ovarian are primarily ampullar. As the ovum develops in the ampulla there is usually a tendency toward the fimbriated orifice. Thus hæmorrhage would take place and further crowd the ovum in that direction, being in the line of least resistance. Then possibly contraction of the tube would squeeze the sac into the abdominal cavity. If wholly detached the ovum will probably die and with the blood, be finally absorbed. Or it may be but partially detached and still have anchorage to the tube sufficiently extensive to nourish it for continued growth. If conditions are favorable it may even go on to full foetal development.

When the ovum lodges farther down the tube toward the uterus there is less tendency to tubal abortion, and by so much the more a liability to rupture. This usually occurs before the third month, though it sometimes goes on to full maturity. L. Benham reports a case which ruptured before the 20th day of gestation, and Mathewson, one associated with a normal uterine pregnancy in which both foetuses reached maturity.

When the fecundated ovum takes root in that portion of the tube within the uterine wall, we have the third main division of tubal pregnancy, interstitial or intra-

mural pregnancy. If it lies midway the wall of the uterus, the growth is toward the abdominal cavity and though it may go to term in very rare instances, it usually ruptures before or by the fourth month. If, on the other hand, the lodgment is very near the uterine cavity it develops in that direction, and we may have abortion into the uterus; or by thinning and absorption of the intervening tissues, it may go on to term and be born in the usual way.

The majority of *foetuses* which approach full development in these unnatural environments are more or less imperfect owing to defective nutrition. Unless operated on they die soon after term, and the limit of their development is usually attended by signs of labor.

In this fact lies a question as to what it is that induces normal labor. Some of the factors supposed to be determining in bringing on the phenomena called labor or parturition are mentioned by Hirst, as follows:

"Fatty degeneration of the decidua; completion of the muscular development of the uterus; accumulation of carbonic acid in the uterine sinuses; gradual expansion and obliteration of the cervical canal and consequent pressure of the ovum on the *os uteri*, etc."

It is evident from the labor phenomena of extra-uterine pregnancy that none of these is the essential factor, but it is far more likely that some oxytocic substance is developed by the tissue metabolism of the *foetus* or placenta, which substance, acting through the nerve centers, is the real cause of the phenomena of labor both in the normal and the ectopic cases.

But to return to the main topic. The first phenomena attending ectopic gestation are a more or less complete arrest of

menses and a more or less complete symptom complex of ordinary pregnancy. The patient will often tell you that she thinks herself pregnant, and that her last menstruation was not natural. She may complain of a sense of weight in the pelvis.

Aside from these symptoms there are no others until stretching of the tube gives rise to discomfort or real pain. This is very likely to be paroxysmal in character, partly from contractions of the musculature of the tube, and partly from sudden tensions on the peritoneal covering due to fractional yielding of the tube wall or occasional sudden increase in blood pressure. These phenomena persist in a greater or less degree until the death of the *foetus* and arrest of development, or until tubal abortion or rupture occurs.

We will not consider at length the matured extra-uterine *foetus* more than to say that it is exceedingly rare that the ovum reaches maturity and though one may chance on such a case, he is not likely to do so. Should he do so, operation is the only hope for the child, but it may be the most hazardous for the mother. If the child be evidently dead, and no symptoms of urgency assail the mother, to wait and watch until degeneration of the placenta has rendered operation more safe and free from the dangers of hæmorrhage, seems the better policy.

When, with the growth of the *foetus* in the tube, the limit of accommodation is nearing, the case of the mother is indeed one of constant and great danger. Should she have been fortunate enough to have consulted a careful and learned obstetrician, he may be to her, indeed, a saver of life. He carefully analyzes the history of her trouble, the signs of pregnancy noted one by one, the aberrations—especially the unnatural character of the last

menstruation—possibly though not always a history of more or less sterility, the first feeling of weight and vague discomfort, then the attacks of pain, possibly the history of a little hæmorrhage with a piece of fleshy substance, the uterine decidua vera. This history should suggest to him the possibility of extra-uterine pregnancy, and he should request an examination. Should his suspicions be well founded, he will probably find on one side or the other of the uterus an enlargement of the tube, ovoid in shape, pulsating, tender, giving an indistinct sense of fluid elasticity. The absence of fever excluding acute pyosalpinx, he will be justified in advising immediate operation.

The usual mortality in unoperated cases being nearly 70 per cent., his careful analysis, skilful examination, logical conclusion, and firm decision not to risk her life by temporizing, has saved her from imminent danger and probably from death. How many women have gone to death under the dull eyes and ignorant guardianship of incompetent physicians with the easy diagnosis of "heart failure," it is impossible to say. But we are thankful that every year sees a greater number of those who stand as guardians of the people's health who recognize and rightly interpret these danger signals. The operation in these unruptured cases is safe and easy, and differs in no material way from a simple ovariectomy.

But sometimes a patient does not consult her physician for the colic as she calls the pains from which she has been suffering, and some day, it may be when exerting herself in some household task, she feels a more than usually severe pain, and grows faint and weak, possibly falls to the floor, and, may be, passes into unconsciousness.

The physician is hastily called. He notes at once the pallor, the sighing respiration, the thready rapid pulse—not the slow pulse of ordinary fainting—and hardly have the nerves from the finger transmitted the impression of that pulse when it is interpreted in one word "hæmorrhage." Lower the head. No external signs of hæmorrhage, no history to guide him, the pulse gets thinner and fades away. What to do? Whisky? No. Normal salt solution in the quickest way, in any way, per rectum, hypodermically, both. Give strychnia, and if needed, give morphine, which relieves pain and secures quiet not only of the voluntary restlessness so often an accompaniment of hæmorrhage, but also intestinal peristalsis.

Some decree morphine in these cases. Do not trust the faddist. He will carry out his fad, though his patient tosses continually and keeps that little jet of blood flowing in the pelvis, when a little rest would save life. We must use common sense and if we have pain and restlessness, use morphine, notwithstanding the dictum of any supposed authority, or the opinion of the many small echoes, who without reason of their own, follow blindly some supposed high authority.

I would not use ice on the hypogastrium. It does harm by contracting the superficial arteries and increasing the blood pressure internally, and also is depressing to the vitality of the patient. Use heat to the extremities and to the whole body for very obvious reasons.

Don't disturb your patient for an examination, other than to assure yourself that the hæmorrhage is not per vaginam. Give liquids by mouth in small quantities frequently, as all the tissues are thirsty and calling for water.

When she is sufficiently rallied, make a very careful examination. You may feel that doughy mass mentioned in the books, and you may feel very little that seems amiss. It don't matter. You have your history and your symptoms; operate and tie off the bleeding vessels. Keep up the infusion of salt solution while you operate. Operate as quickly as possible; get to the bleeding part as soon as you can. You can clean out clots afterward. Stop the bleeding—that's the thing to do.

It don't make any difference now whether it is a tubal abortion, ampullar, isthmic or intramural rupture. It makes a great difference to your patient whether she loses a few ounces more of blood now or not. It makes a great difference to your patient whether she stays under the anæsthetic ten or fifteen minutes more than is absolutely necessary. Don't discuss it. Keep still and work rapidly.

Don't mess and pick and potter over details, but do the needful things, the vital things, get at the bleeding part, tie off, clean out with good warm normal salt solution, drain, close up the wound and stop the anæsthetic. To the bed and warmth and quiet. You have probably saved a life.

The above supposed case is one of free rupture into the abdominal cavity. Now once in a while we have rupture into the broad ligament, but such cases are rare. Joseph Price in over a hundred cases of ruptured tubal pregnancy found none that had ruptured into the broad ligament.

It is easy to understand that when such occurs, on account of tearing up the peritoneum and confining the extravasated blood, the pain will be much greater and the signs of hæmorrhage much less than in free rupture into the peritoneal cavity. Most of the pelvic hematoceles we used to

see mentioned in books and periodicals were of this nature.

In 1890 I saw Martin operate on what he had diagnosed as fibroid, on account of its hardness. When he enucleated it, he pronounced it a hematocele, but I think in fact it was a case of tubal pregnancy ruptured into the broad ligament. The resisting walls of the ligament had stopped the bleeding, and then a firm coagulum had formed. In time it would have been absorbed, or, becoming infected, would have given rise to a pelvic abscess.

The first case of extra-uterine pregnancy with which I had to do was in 1883. I was called in to see a post-mortem on a woman who had died of heart failure or any one of four different maladies, for there were four physicians who witnessed the passing away. There was much surprise and a good deal of personal explication when the abdominal cavity was opened and found full of blood clots. A ruptured aneurism said one; a case of abdominal apoplexy said another. The diagnosis was made, a little late for the patient it is true, when in the blood clots was found a two months old foetus, placenta, and membranes.

The next case was that of a very intelligent woman, 26 years of age, married four months. Menstruation had been regular, do not know whether it had varied from the normal or not. June 29th, 1892, had been out for a walk. On returning home was seized with pain in lower abdomen and grew very faint. Dr. W. E. Burtless, of St. Clair, saw her and administered the usual remedies and advised rest. I saw her on July 2nd in consultation with Dr. Burtless.

On examination I found what I took to be a mass of coagulated blood in the

left pelvis. The patient was very pale and weak and had a rapid, feeble pulse. I advised operation, but she had rallied somewhat from the first attack, similar, though not so severe, so she decided to postpone so radical a procedure.

Four days later, July 16th, I was sent for and asked to be prepared to operate. Evidently there had been more bleeding in the interval, as she was distinctly weaker and the pulse was more feeble and rapid. I hesitated to operate, and did so only on her solicitation that she be given a chance for life even if it was but one in a thousand.

Under ether anæsthesia I quickly opened the abdomen and was securing the bleeding vessels when the heart failed completely and she died on the table. This was a case of left side tubal pregnancy of two months or more. The rupture was about midway of the tube, and there were concentric layers of clots formed at several different times.

Mrs. K., aged 32, mother of two children. Had a miscarriage at three months the previous year. On the evening of July 16th, 1900, she was taken with violent pain in the lower abdomen and became unconscious. Dr. Burtless was hurriedly summoned and found her blanched and pulseless at the wrist. Restoratives were used and she partially rallied. In connection with Dr. Scholes, of St. Clair, I was called in consultation.

It was evidently a case of very free hæmorrhage. A careful examination for vaginam revealed no tumor in the pelvis. The hand externally by very gentle pressure made out what seemed a four or five months pregnant uterus, somewhat irregular in shape. The patient, notwithstanding the usual means of relief, continued in a state of collapse and it was decided

not to attempt an operation until some decided reaction could be obtained.

The patient lingered in much the same condition until the 18th and died. Autopsy showed an intra-mural pregnancy with rupture on the right side. The ruptured wall was but the peritoneum with a few muscular fibers beneath it. The pregnancy was advanced three or four months.

The next case I saw also occurred in the practice of Dr. Burtless. A German woman of about forty, with five normal labors and one miscarriage at three months, strong, muscular, and very fleshy.

On May 4th, 1903, was taken with severe pains in the abdomen and became a little weak. The abdomen became distended and it was with difficulty that the bowels were made to act. Dr. Scholes saw her in consultation. A week later I was called in as she had a similar attack. She had some fever and considerable abdominal pain. I could detect no tumor in the pelvis on account of the great amount of fat. She continued to have more or less fever and pain for a month and finally a tumor formed in the right iliac region.

She finally began to pass blood and pus per rectum, and noting some obstruction Dr. Burtless made a rectal examination and removed a partially decomposed foetus, which was followed by a large amount of blood and pus. About a week later the remainder of the placenta came away. The amount of blood was not at any time enough to weaken her, and we left it to nature to control, which she did in a day or two. The patient made an excellent recovery, and has been well ever since. Until the appearance of the foetus, though we entertained the theory

of extra-uterine pregnancy, we were uncertain as to the cause of the abscess.

So in this case the physicians did nothing but watch nature make the diagnosis, operate, and deliver the patient. The manner of her operation and delivery was peculiar but effective.

Since August, 1903, I have operated on three cases of extra-uterine pregnancy, two ruptured and one unruptured. The first of these occurred in a patient of Dr. G. H. Treadgold, of Port Huron. Mrs. S., age 24, one year married, never before pregnant. Had always been regular until the last two times she noticed that the flow was scanty, but had no idea that she was pregnant. August 20th was seized with rather severe abdominal pains. Dr. Treadgold was called and gave her a hypodermic. On the 22nd had a severe attack of pain but was better when the doctor came. August 24th, about 2 P. M. he was again called for the same cause. Found her pale, cold, without radial pulse and suffering severe pain. Recognizing the nature of the case, he gave her a hypodermic of strychnia and morphine and normal salt solution per rectum, and called me.

When sufficiently revived she was taken to the hospital and I operated that evening. As she was suffering and restless, she was given another hypodermic of morphine and strychnia, a double stream of saline solution was given under the breasts, and while passing under chloroform anæsthesia the pulse rose in volume and became slower.

She was a large and fleshy young woman and the abdomen contained a very large quantity of fluid and coagulated blood. The lesion was found in the wall of the uterus on the right side in the shape of a rent about one and one-half inches in

length. It was cleaned out and curetted and trimmed with scissors and stitched up with fine silk. The condition of the patient made it impossible to make a very complete toilet of the peritoneal cavity, which afterward led to the necessity of establishing drainage through the wound. This protracted the recovery somewhat, but she soon regained perfect health. I think it best under these circumstances to drain for a few days.

My next case was that of Mrs. M., age 26, married three years, never pregnant before. Had always had more or less dysmenorrhœa. She came to me in September, 1903, complaining of symptoms of pregnancy and recurrent pains in the right ovarian region. On examination I found an ovoid, pulsating and tender mass in the right tube—no fever. She stated that the pains were becoming more frequent and severe and that the last menstruation had been unnatural. I advised operation, which I did on September 24th, and found a right-sided tubal pregnancy, of about three weeks growth. It was situated about midway of the tube and was on the point of rupturing and did so on manipulation after being clamped off on both sides. As there was no loss of blood no drainage was used, and the patient speedily recovered.

The third was Mrs. T., age 33, married four years, one child two years and six months old. I learned that after her confinement she had some septic trouble in the pelvis. On January 5th, 1904, while moderately exerting herself, she felt a severe pain in the lower abdomen and soon became very faint. She had missed no menstruation and had noticed nothing unusual in the last one. Dr. E. E. Lewis was called and recognized the nature of the case at once, and applied the usual

remedies for restoring the circulation. I saw her about three hours later. She was nearly pulseless at the wrist, with sighing respiration and complained of severe pain in the right shoulder.

This transference of pain is one of the features of pelvic and abdominal lesions that has mislead some as to the true location of the trouble. I saw one case of ectopic pregnancy in which pain in the left sub-clavian region was the chief complaint of the patient.

Mrs. T. complained so bitterly of this shoulder pain that she was given a quarter grain of morphine with strychnia. Before my arrival her physician had given her a saline enema, which had had some effect on the pulse. About 6 P. M. I gave a good quantity hypodermically with good results.

It was impossible to get her to the hospital that night, so I left word that should her pulse indicate it she should be given

the saline infusion. This was given the latter part of the night together with strychnia.

The next morning she was taken to the hospital and I operated on her. I found the tube ruptured on the left side very near to the uterus. The rupture seemed more like an explosion and had entirely separated the tube from the uterus. G. Ross in *Am. Jour. Obs.* 1895, mentions a similar result. During the operation a double stream of warm saline solution was kept running under the breasts, with the result that the pulse was better at the close than at the beginning of the operation.

I do not think the pregnancy was beyond two weeks. As there was a great amount of blood and coagula in the abdomen I used a drainage tube which I removed on the third day. The patient made an uninterrupted recovery and rapidly regained her strength.

THE OPERATIVE TREATMENT OF CYSTOCELE AND PROCIDENTIA UTERI.*

JOHN N. BELL,
Detroit.

To Dr. Edward Reynolds, of Boston, is due the credit of first enunciating and demonstrating the sound anatomical and surgical principles which underlie the successful operation for repair of cystocele and prolapse of the uterus, and of devising an operation embodying his ideas.

Prior to the publication of his paper on this subject in "*American Medicine*,"

August 2, 1902, the operative treatment of cystocele and procidentia uteri was confined to a more or less superficial denudation of the anterior or lateral vaginal walls, removal of a section of the vaginal wall over the hernia only, almost complete closure of the vaginal opening, ventrofixation or hysterectomy. The superficial denudation and approximation of the denuded areas with transverse antero-posterior or purse string sutures was unsatisfactory, in many cases the united surfaces would become stretched and thin

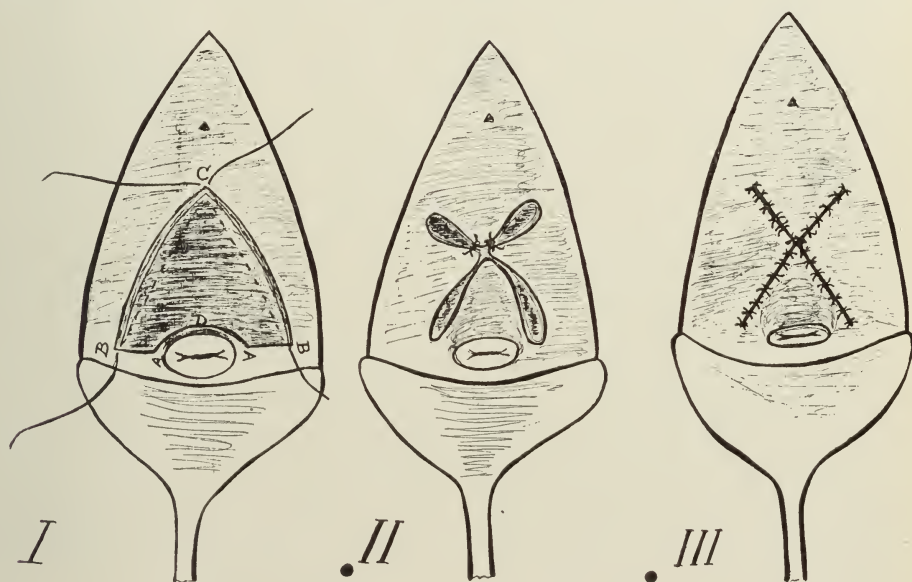
*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 25, 1904, and approved for publication by Committee on Publication of the Council.

again in the course of a few months; vaginal hysterectomy, too, proved unsatisfactory in many cases, merely removing one of the causes of the hernia, namely, the dragging downward of the upper end of the anterior vaginal wall by the uterus. Other plastic operations proved unsatisfactory because they did not take into consideration the necessary support of the upper end of the vesico-vaginal septum.

Believing that hernia of the anterior vaginal wall should be treated as hernia in other parts of the body, that the attachment of the lower end of the anterior

either side of the cervix. The thin stretched portion of the vaginal wall is then removed, sutures are then placed so as to connect points B and C, when they are tied the result is as shown in Fig. 2; the remaining strong fascial margins are approximated by interrupted sutures of chromicized cat gut, the operation when completed is shown in Fig. 3. The whole procedure being reinforced if necessary by repair of the perineum.

As a result of this operation the cervix is pushed upward and backward, thus placing the support of the upper end of



vaginal wall to the posterior surface of the pubic bones, and the attachment of the upper end of the vaginal wall to the cervix at its junction with the base of the broad ligaments formed the two anatomical points of true support, Reynolds devised the following operation:

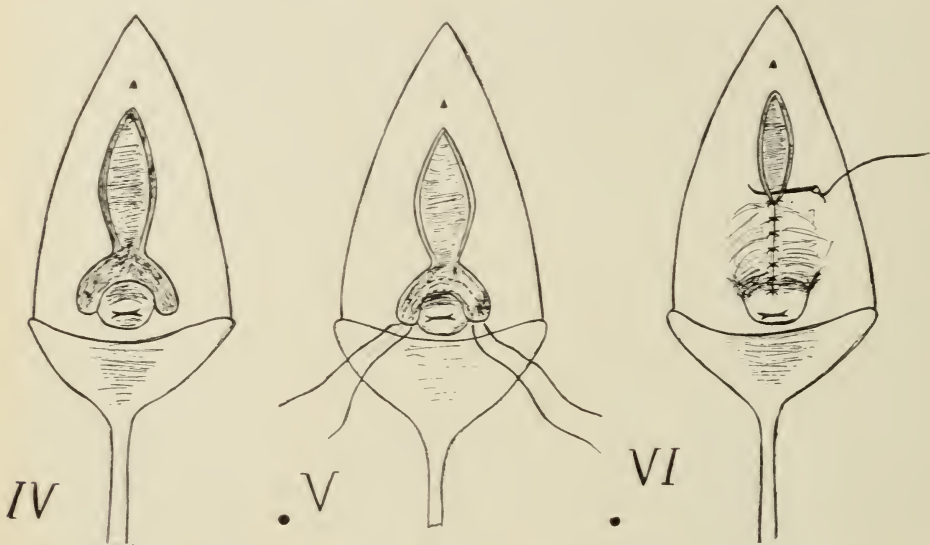
With the patient in the Simms position, the anterior vaginal wall is dissected away from the bladder by making a median incision from the points D to C as shown in figure 1, separating the flaps and carrying the dissection well down on

the anterior vaginal wall back to its normal position, (the base of the broad ligament,) and fixing it there.

Dr. E. C. Dudley, of Chicago, modifies the operation somewhat by carrying the dissection laterally upon the cervix as shown in Fig. 1, Chart 2. This latter I believe to be the better procedure as it throws the cervix well back into the hollow of the sacrum and unites the strong central part of the broad ligament in front of it.

In a recent communication, Dr. Reynolds informs me that he has operated upon about thirty cases by his method with uniformly good results. The writer has operated upon but two cases by the modified method of Dudley, both were successful, and one especially I wish to

smelling discharge and erythema of the vulva and inner aspect of thighs, dragging pain in the back and general discomfort. She had been cautioned by her old family physician never to submit to an operation. It is now nine months since I operated, and she is entirely cured of her



report somewhat in detail—that of Mrs. M., aged 57, who had given birth to one child 25 years ago. This patient had suffered from procidentia and frequency of urination for many years, and was obliged to wear a cup and stem pessary with belt and rubber cord attachments, in consequence of which she presented with a foul

troublesome symptoms and enjoying perfect health. My sole object in presenting this short paper is to enter a plea for a more extended trial of this operation, to the end that many suffering women may be spared the risk of more formidable operative procedures.

Some Newer Aspects of the Pathology of Fat and Fatty Degeneration (conclusions).—1. *Osmic acid* does not stain all forms of fat and fat alone, and so is but an imperfect method of demonstrating it. *Soridan III* and *Scharlach R*, though having disadvantages, give more satisfactory results.

2. Visually demonstrable fat is present normally in very many cells of the body, while extractive fat occurs in practically all of the tissues.

3. Under normal conditions visually demonstrable fat appears in cells in increased amount, and is an index of cell injury.

4. Fatty infiltration is the physiological appearance of fat in normal cells, and fatty degeneration is the appearance of fat in injured cells; the fat is an index rather than the direct result of cell degeneration.

5. Origin of the fat in both is probably the same and is mainly from without the cell by transport from fat depots elsewhere, but may arise within the cell from fat-related bodies, not from proteids.—(*Johns Hopkins Hospital Bulletin*, January, 1905, H. A. CHRISTIAN.)

OPERATIONS UPON THE PROSTATE.*

E. B. SMITH,
Detroit.

Operations on the prostate present the same history which new and radical operations have upon other organs. There was a seeking long ago for some medical remedy or surgical procedure that would give relief. Then a period when all attempts to relieve were suspended, and the symptoms were treated. Again a period when the profession seemed aroused to greater activity, bending all their energies toward the finding of "a sure and safe way" to overcome the condition that was robbing the middle-aged man of life and strength, and destroying those who had passed into life's last quarter.

Numerous remedies were given by mouth. Locally, iodine, ergot, hamamelis, hemlock, electricity, all had a trial. White's castration, with all its distressing sequels, was one of the first major operations for the relief of the hypertrophied prostate. Then vasectomy was quickly brought forward by Harrison, after he had used puncture of the gland with perineal drainage. The perineal section was tried in hopes of securing atrophy of the organ. Then Bottini's operation. All these were seen to be unsurgical, and the profession now realize with their experience derived directly from work done upon the prostate and adjacent parts, that the scientific treatment of chronic hypertrophy of the prostate is enucleation of a part or of the whole gland.

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The *modus operandi* of the operation is not settled. For a long period vaginal and abdominal hysterectomies each had its champions, and so supra-pubic and the perineal route each has had its advocates, but with all conditions equal, the perineal route has many more defenders. The most vital part of the whole subject is to have that small portion of the medical profession which does not realize as yet the importance of an irritable prostate, know the great need of giving quick and thorough treatment in each case at the beginning of the trouble. Yes, I go further and say that acute, sub-acute, and chronic posterior urethritis, urethrocystitis, injuries and inflammation of the perineum, prostate and adjacent tissues, will receive more consideration, and so, better treatment as the result of the many operations upon the prostate gland. Then again they will open to a greater extent the medical and surgical treatment of bladder and urethral troubles, and will also prevent other serious genito-urinary conditions. An enlarged prostate predisposes to stone in the bladder. A large per cent. of operations on the prostate reveal this condition.

The diagnosis of hypertrophy of the prostate is easily made, requiring no special instruments. Simply inserting the educated finger up into the rectum will enable one to tell if the gland is well into the bladder. If it encroaches upon the rectum, the size may be partially made out. Under general anesthesia in thin subjects, bimanual manipulations will be an aid to diagnosis. The prostatic urethra is lengthened, and often requires

a prostatic metal catheter to evacuate the bladder. With the lengthening, we very often have distortion of the urethra. The first real warning to the patient is a sudden retention of urine, due to cold, shock, etc.

The subjective symptoms are frequent and difficult urination, the patient first being obliged to empty the bladder at night, considerable exertion being required before the act is accomplished, and there may be incontinence of urine.

The size of the gland is not always a criterion of the extent of the damage. The cause of hypertrophied prostate is not clear. Sedentary habits, irrigation of the bladder, sexual excess (?), constipation, neglect in evacuating the bladder, cystitis, and masturbation are some of the factors. The negro seems to be exempt.

For the following reasons the perineal route is more preferable; when the mass is near the rectum, enucleation is easier, perineal drainage is better, the wound will

close more quickly, the patient can be made more comfortable, there are no vessels to ligate; when there is a contracted bladder, which is more or less so in senile cases; where a fistula remains, it is not as annoying, recovery is more rapid, there is less extravasation of urine, less danger of sepsis, and no abdominal mark.

The indications for the supra-pubic method are where the mass is high up—intra-vesical—where there is a large firm calculus, where the tumor is pedunculated, where only local anesthesia can be used.

Bottini's operation on account of the small mortality, and where the operator is inexperienced, may be the best. But operate, and give the poor suffering patient some relief. There is no class of patients who suffer more, none who are more thankful, than those who are relieved from the distressing train of symptoms that go with a chronic hypertrophied condition of the prostate gland.

TREATMENT OF TUBERCULOSIS.*

J. VERNON WHITE,
Detroit.

It is remarkable how slowly and with what difficulty the medical profession is beginning to realize the tremendous therapeutic importance of simple remedies. Such things as fresh air, light, exercise, rest, food and environment, which are manifestly the agents which maintain and influence human health and well-being, have long been over-looked or given a very secondary position, while some obscure or nearly unobtainable commodity,

the product of elaborate chemical processes, or found in remote and inaccessible quarters of the earth, has held medical attention and confidence.

But we are beginning to come into possession of our own. We are slowly coming to realize that these agencies which are most potent in maintaining life and health, are the very agencies which must be relied upon for the restoration of the diseased. This lesson has been brought home to us very forcibly by our struggle with pulmonary tuberculosis, and to-day

*Read before the Wayne County Medical Society, February 6, 1905.

the obscure chemical that professes to be a cure for this disease receives a cool and critical reception, not only from medical men, but from every intelligent layman.

Now, while the medical profession has little or no confidence in any drug as a cure for consumption, unless its therapeutic action has a rational explanation, there is, nevertheless, still remaining a belief in the curative value of some distant locality whose climate is advertised to possess peculiar, specific qualities inimical to the bacillus tuberculosis. There is not sufficient evidence to justify this belief. That a certain number of tuberculous patients recover when they go to these climates is a fact, but this fact is far from proving that the changed atmospheric conditions has anything to do with the improvement.

I wish to be perfectly fair in my criticisms, and I acknowledge that exact logical demonstration must not be demanded in discussing this question, but there are two fallacies in the argument commonly used by those who advocate change of climate for tuberculosis. One of these is obvious when we consider that when one of these patients leaves his home state, there are many factors other than climate that may and do have a tremendous bearing upon his health. For example, there is relief from arduous occupation, different diet and different surroundings. Now, these are as important, if not more important, than change of air. Then, again, it must be admitted that many of our tuberculous patients know very little of the fresh air and sunlight at their very door. They have not tried their native air, for, during the greater part of the sunlit hours they toil in some narrow, dark room. Obviously if such patient is forced from such environment, into open air and sunlight, whether a mile or a

thousand miles away, there will be improvement, but the question arises, "Why send him these thousand miles?"

We may entertain some misgivings as to the willingness of the mountain to move to Mohamet, but there is no doubt the wind bloweth where it listeth, and what is in Colorado to-day is here to-morrow.

What are the main factors that enter into the treatment of tuberculosis? First, diet; second, freedom from worry, overwork and mental depression; third, good, hygienic surroundings, including fresh air and sunlight; and fourth, medical attention. It is impossible to say that one of these is more important than another. They are all essential. We must not ignore any of them nor sacrifice one to obtain another, and this is exactly what happens in many cases.

The majority of these patients have little or no capital. To them traveling and the expenses incident to a change of climate are very burdensome. They are more than burdensome. They are actual hardships. A very sensitive conscience is usually one of the tuberculous virtues, and these embarrassing financial questions and domestic hardships result in great mental depression and worry on the part of the patient, and he is consequently in a very unfavorable condition to combat his deadly foe. His economy is usually practiced in seeking cheap food, which is a fatal frugality.

Then, all about in these popular health resorts, are to be seen hundreds of victims in different stages of the same disease, like the multitudes at the Bridge of Sighs. What could be more depressing? This picture is not overdrawn. The condition of the patients sent to these resorts is pitiable. It has attracted the attention

of humanitarians, and the popular magazines have lengthy articles discussing the best means of dealing with the destitution, disease and altogether lamentable condition prevailing among the thousands of consumptives sent away for health. These patients are far from home and friends. Their money and vitality gradually approaching a point of exhaustion, they still cling to a superstitious belief in the curative property of climate.

If the medical profession does not correct this error, it will be held answerable by the intelligent public. These patients should be kept at home or near home. They should have the fresh air and sunlight supplied in goodly amounts in Michigan, or any other state they may chance to live in. In this way there is a substantial conservation of the patient's means, and a corresponding prevention of worry and mental depression. Then they are within the care of friends. It almost amounts to brutality to send a man, weakened by consumption and financially cramped, to battle with a hoard of greedy, shrewd boarding-house keepers, camped upon the ground eagerly awaiting their prey.

These patients should be kept in easy reach of interested friends. In many cases the family physician's advice and medical attention is invaluable. Any method of treatment that deprives one of these patients completely of his family physician's care is radically defective. It may not be necessary to make daily visits, but the family physician should keep in touch with his patient's condition, and his advice should have an important bearing upon the treatment. To send a patient to distant parts of the country is diametrically opposed to some of the important features that go to make a rational treat-

ment for pulmonary tuberculosis. This same sentiment in a diminished degree, but with considerable force, may be urged against sending these patients to distant parts of their home state. A sanitarium for tuberculosis in the northern part of this state has most of the disadvantages of a more distant location for the patient whose home is in Southern Michigan. There is the loss of the attention of the family physician and separation from friends. While it is foreign to my purpose in this paper to discuss the details of treatment, I must refer to one fact in this connection.

A number of these patients are not only able to work, but a certain amount of occupation is desirable as a therapeutic agent. Now, when such patients are sent to a sanitarium in some distant part of the state, they are cut off from occupation, and when home are deprived of any and all sanitarium advantages. These patients may be kept under careful observation for months and years by occasional calls to a nearby sanitarium, or an occasional sojourn in it, for a few weeks or months, and still lose comparatively little time from a suitable occupation. This necessitates a sanitarium conveniently near to the home of the patient. Such a sanitarium in or not too far distant from Detroit would be of inestimable value to these patients and their friends, and in fact the whole city.

Dr. E. L. Shurley has done the pioneer work in this connection. He has not only demonstrated the feasibility of the treatment of these patients in their home state, but has shown conclusively that it is practical and economical.

I have tried to show in this brief paper some reasons why consumptives should receive treatment in their homes or in a sanitarium located close to their homes.

To attempt to describe the practical details of the working of such a sanitarium for the City of Detroit is beyond my purpose at this time. It would have all the advantages that can be urged in favor of a state sanitarium with several additional valuable features. The initial cost would not be great, and when once instituted would be to a great extent self-supporting.

The advantages to be derived from a city sanitarium for Detroit may be summarized as follows:

First—Many patients would receive all the benefits of the sanitarium with but little interference with regular occupation.

Second—The attention of the family physician would be retained.

Third—Complete separation from friends would not be necessary.

Fourth—The sacrifice, hardship and worry, attending a change of climate, would be prevented.

Fifth—The sanitarium would be of great assistance to Detroit Physicians who desire to assist in the struggle against tuberculosis. The interest of the physicians would be a guarantee against abuses.

Therapeutic Notes.

FOR MULTIPLE WARTS.—

R Spiritus oderatus..... \mathfrak{z} iii 90
Tinct. belladonna..... \mathfrak{z} ss 15
M.

Sig.: To be applied locally to hands.
(*Merck's Report.*)

FOR WHOOPING COUGH.—

R Sodii bromide.....gr. xiv. 3
Antipyrinegr. xv. 1
Glycerini \mathfrak{z} ii 8
Aq. cinnamnei qs. ad..... \mathfrak{z} iii 90

Sig.: One teaspoonful every two hours for a child of one year. (*Medical News.*)

THIGENOL IN GYNECOLOGY.—Thigenol is more effective than ichthyol and has none of its disadvantages. It is employed on tampons in inflammatory conditions of the adnexa, parametritis and perimetritis. Blondel uses a mixture of equal parts of thigenol and glycerin.—(*American Journal of Medical Sciences.*)

A NEW HYPNOTIC.—Neuronal is bromodiethylacetamide, a white crystallized powder slightly soluble in water,

easily soluble in alcohol and resembles menthol in taste, with the addition of slight bitterness. According to Siebert, Zecker, and others, it produces a quiet slumber about one-half hour after its administration, with no unpleasant after-effects. The drug seems to have no accumulative action. The dose is from $\mathfrak{z}\frac{1}{2}$ to 30 grains.—(*American Journal of the Medical Sciences.*)

Food Preservatives.—V. C. Vaughan, Ann Arbor, Mich. (*Journal A. M. A.*, March 11), states that a true food preservative must keep the substance to which it is added in a wholesome condition so that it can be consumed without impairment of health. It must be a real preservative, keeping the food in a wholesome condition and not merely preserving the appearance of freshness while permitting bacterial changes to continue. It must not materially impair any of the digestive processes even in the largest quantities used, and should not be a cell poison, or if such to any extent, it must be added to foods only by persons qualified by special training and officially authorized. Foods containing these substances must be plainly labeled, and the kind and amount of the preservative used must be made known, not only to the buyer, but to each consumer. A cell poison is defined as an agent that destroys or impairs cell functions by its chemical action.

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Editorial.

DISTRICT MEDICAL SOCIETIES IN MICHIGAN.

The organization of the Michigan State Medical Society provides for three kinds of meetings: First, the annual meeting of the entire State; second, the annual meeting of the Councilor District Societies, and third, the Branch or County societies—meetings at varying intervals, of a week to semi-annually. Each meeting has its peculiar functions, and all together are intended to be mutually helpful, every day in the year. With the Branches rests the responsibility of selecting the members for all the meetings. If in good standing in any Branch each doctor is a member of his own District Society and the annual State Society meeting, as well as an honorary member of each other Branch.

The District Societies are composed of all the members in each Councilor District. Thus the eighth District Medical Society is composed of the members of Midland, Saginaw, Tuscola, Isabella, Gratiot and Clare Branches. It was organized Dec. 6, 1904, at Saginaw, under the direction of Councilor S. J. Small. Excellent papers—crisp discussions—a toothsome banquet—with bright after-dinner speeches made the many hours far too brief.

The District Societies aim to promote a closer bond between the members of the District—a bond of social, intellectual and professional fellowship—so that outsiders may desire a membership therein. Thus a meeting midway between two meetings of the State Society of several branches, at a minimum of expense and trouble promotes enthusiasm, and augments the power of organization.

October, 1903, the Fifth Councilor District Medical Association was organized at Grand Rapids under the direction of Councilor Welsh—a large attendance and great enthusiasm characterized the reading of papers, discussions and the evening banquet.

Early in the fall of 1904 the Upper Peninsular Medical Society changed from an independent Society to the Tenth District Medical Society. Its meetings are enthusiastic, wide awake, and helpful.

On Nov. 15th, 1904, the Ninth District Medical Society was organized at Traverse City, under the guidance of Councilor McMullen, assisted by Councilor Dodge. Seventy-five members were present at the banquet, which closed a most profitable day spent in listening and discussing papers, clinical reports, etc.

On December 8th the Eleventh Councilor District Society was organized at Muskegon, under the guidance of Councilor Dodge. The day was spent in the reading and discussion of papers, in a clinic, and an inspection of the new Hackley Hospital, all ending with a delightful banquet. At this meeting the President and Secretary of the State Society, and Chairman of the Council were present, aiding in the success of the occasion.

On February 20th was organized the First Councilor District, under the guidance of Councilor Leartus Connor. The

sessions began at 9:30 A. M. and lasted during the day and evening. About one hundred and fifty, exclusive of Councilors Willson and Haughey, were present at the banquet, in spite of the disagreeable weather. Able papers, excellent discussions, and an enjoyable banquet, were features of the occasion.

In general the organization of these District Societies is the simplest possible. After selecting the next place of meeting, the President and Secretary of that Branch become officers for the coming year. As aids are the Secretaries of the several Branch societies—all together form the executive committee, with full authority to make all arrangements for the next meeting programme, expenses, etc. Most Districts have one or more places best suited for holding the meetings, and these are selected with regard to convenience of access by all doctors in the District.

Great credit is due the committee having charge of arranging for these meetings, as they work along new lines, on a new proposition.

On May 11th the Sixth Councilor District will meet at Durand, under the guidance of Councilor Burr. A most interesting programme has been provided, and its attractions will bring a full attendance. Other Districts will form like societies at the fitting date.

Thus far experience shows that these District Societies can add a new and important factor to the success of organization. A meeting without election of officers, without any business except intellectual, professional and social fellowship, at a place convenient of access, all details arranged by existing officers, stripped of rivalry, jealousy, breathing a

spirit of mutual helpfulness, must enlist the support of all.

This movement shows that while in the past doctors have been stragglers on the world's battle fields, they are now forming into companies, regiments and armies, in position to fight their foes and defend their friends. In the past they have limited their studies to individual interests; now they are beginning to study their interests as societies, County, District, State and National.

DR. OSLER'S JOKE—LIMITS OF HUMAN USEFULNESS.

In his parting address to the Johns Hopkins Medical School, Dr. Osler perpetrated a joke, which at once gave him the entire world as an audience. The newspapers made him say that being useless at the age of sixty, chloroforming was the proper ending of the individual.

What he did say was that the teacher was to be a student till twenty-five; an investigator till forty; a teacher till sixty, and then retire upon a pension. Incidentally he introduced a suggestion of Anthony Trollope on chloroforming the aged.

This latter caught the popular ear and set the people talking about being "Oslerized," viz., "chloroformed" at sixty. As those who live long enough reach sixty (and all hope to do so), have a personal interest in their "taking off," something was "put up" to them for discussion. The discussion took on every possible form, written, pictorial, songs, prose and poetry, and the impression made was profound—doubtful if the living ever forget it, because of the well known abilities of Dr. Osler, his profound knowledge,

his past position as teacher, writer, organizer, practitioner, and of the future position to which he has been elected at Oxford, England. The words of such a personality sink very deep into the hearts of all who know of him.

His correction of the newspaper report will fail to correct the first impression, though many will learn what he actually did say. Even these will not all agree that any age limit can be fixed for the race; they find individuals very useful long ere twenty-five and long after sixty; they recognize helpfulness to the world, from childhood to the natural grave in lives who make the most of their abilities and opportunities; they have derived assistance from both the baby and the gray-haired man and know that if either were blotted from the world all would suffer loss.

The fact is, every age has its peculiar weaknesses and power, both are essential to the best evolution of the race; we may hope to diminish the one and increase the other so as to augment the total of good and diminish the ill; but we may not pass beyond the point at which the helpfulness of the babe or the octogenarian will not increase the power of the man in the height of his physical and mental power—in short there is no known limit of human usefulness to be fixed by arbitrary limit—from cradle to grave.

their fellowship, has never been published. In fact previous to this it has never been possible, because there was no means of sorting physicians. Hence laymen have collected the entire mass, and the reader had to assort as best he could.

In a country large as the United States, the number of deaths, removals, and ceasing of active practice, is simply stupendous, as he has observed who sought to communicate with any considerable number of doctors.

Accurate information of all physicians in the United States is needed for the successful prosecution of many kinds of work. Insurance companies need it for the selection of their medical examiners; all who deal with physicians need it; each physician needs it, that he may select proper persons to care for patients who remove to distant places and seek a reliable family physician or specialist.

The *Journal of the American Medical Association* proposes to supply this need, and issue a reliable directory at an early date. This will be based on the records of the state societies and their component parts. Only those will appear who have paid their dues in advance and are otherwise in good standing. The college year of graduation, and date of license to practice will be given.

The names of the State and County Societies will be listed, with places and dates of meetings, names and addresses of officers, etc.; medical laws of each State; names of members of board of health; names of the licensing boards; names of the officers of the medical departments of the army, navy, and marine hospital service; names of examining surgeons appointed by the Commissioner of Pensions; names of national and state and

ARE YOU ELIGIBLE FOR RECORD IN THE NEW MEDICAL DIRECTORY IN THE U. S.?

A Directory of physicians in the United States, each of whom has been passed upon by his peers, and taken into

local charitable institutions, with their officers; and such additional information important to physicians.

It is estimated that this Directory will contain about fifty thousand names—necessarily the cream of the profession. To members of State Societies and their components the price will be nominal—to all others a small profit will be charged. If desired, separate directories will be issued for separate states.

It now remains for each to make this more valuable, by first making sure that his own dues are paid in advance for the current year; and second, by laying the matter before his friends, that they may join the County and State Society, and have their names enrolled. Thus an additional reason is offered for those outside organization, to step in—get in lest you be left.

A CURE ON NEWSPAPER ADVERTISING.

Many methods have been adopted to limit newspaper advertising by physicians—but the practice continues. Some months since the Orleans County Medical Society, adopted the method of imposing on the Secretary of each society the duty of pasting in a scrap book each month all notices of the wonderful deeds of doctors appearing in the secular papers of the district, and placing the book on the President's desk at each meeting for the inspection of all. The privilege was given the members whose name appeared the chance to attach his explanation of the fact.

Since the Fort Wayne Medical Society (Ind.), has adopted the same idea, while it is too late to be sure of results, there is every reason to believe that it must produce good.

The scrap book is to be indexed for easy reference that each may know the frequency with which he has appeared in the newspapers to the discredit of his fellow physicians.

For the convenience of those societies desiring to adopt this idea the following resolutions adopted by the Fort Wayne Academy of Medicine are quoted from *Jour. A. M. A.*: “Resolved, That copies of all articles appearing in the daily press of this city relating to regular physicians of this city shall be placed in a scrap book that shall be kept on the secretary's desk for the inspection of members.

“All articles appearing between meetings of this society shall be read at each meeting, and any member whose name shall appear therein will have the privilege of attaching thereto a written explanation. The book shall be indexed.”

A FOURTEENTH CENTURY PICTURE OF A DOCTOR.

Often the character, ideas and work of old time doctors is spoken of with derision, because the speaker is ignorant of his topic; it may fairly be said that in every age the medical profession applied, with varying skill, the scientific knowledge of its time, more than this it were vain to expect. Throughout all ages, we have records of doctors characters and ideals of the highest. The “up-to-date” doctor of to-day could get many helpful “pointers” from these.

Thus in 1363, Dr. Guy de Chauliac, says: “Let the surgeon be well educated, skilful, ready and courteous. Let him be bold in those things which are safe, fearful in those things that are dangerous; avoiding all evil methods and practices.

Let him be tender with the sick, honorable to men of his profession, wise in his predictions, chaste, sober, pitiful, merciful; not covetous or extortionate, but rather let him take his wages in moderation, according to his work, and the wealth of his patient, and the issue of the disease and his own worth."

There would be no complaint if all modern doctors realized this ideal—organization would have no difficulties—the people would follow wherever the profession lead.

While he speaks of the surgeon, the ideal is equally fitting to physicians or specialists—the fourteenth century model represents the best for all time.

Right motives, right conscience, and right character, are fundamentals in every doctor, and might be stimulated by a knowledge of the medical heroes of the by-gone centuries. Our thinking and our facts, are part of a stream flowing through us, but starting in the activities of these heroes ages long past.

THE FORTIETH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY.

The next annual meeting of the State Medical Society will be held at Petoskey the last three days of next month, June 28th, 29th and 30th. At this time Petoskey will be at its best. The season will be sufficiently advanced to assure good weather, but it will be before the advent of the regular patrons, so that hotel room will be ample to accommodate all. Mr. Peck of the Arlington (head-quarters), a practical hotel man of large experience, thoroughly conversant with

the needs of his guests, will spare no pains for their pleasure and comfort. There will be music in abundance and the committee on arrangements have provided unique forms of entertainment. There will be side excursions to the many points of interest along the shores of Lake Michigan and to Mackinac and other islands.

The scientific part promises to be of unusual interest. Men of prominence throughout the State and from neighboring States will address the general meetings and the sections. All meetings will be held under one roof. A general invitation will be extended to all members of the regular profession.

The summer time table will be in force and there will be ample railroad accommodations. A rate of one fare and a third for the round trip has been secured on all roads.

It is earnestly hoped and confidently expected that every member will feel it incumbent upon himself for his own enjoyment and for the welfare of his County and State Societies to attend the meeting. Those in charge will spare no effort to make it a success, and there is no doubt that one of the greatest, if not the greatest, incentive to good work by all concerned is a well attended and enthusiastic gathering.

Go then to the meeting and take your family with you. Give yourself and your family an outing. There will be plenty of room, plenty of fresh air, good accommodations, excellent cuisine, good music, good fishing, and entertainment for all.

Go, one and all, as well for your own sake as the welfare of your profession.

A. P. B.

County Society News.

ALLEGAN COUNTY.

The annual meeting of the Allegan County Medical Society was held at Allegan, January 27, 1905. The following resolutions were adopted:

Resolved, That the Allegan County Medical Society favor a legislative bill authorizing the registration of graduate nurses, but such bill shall in nowise conflict with nursing, either gratuitously or for pay, of any undergraduate nurses.

The following resolution was also presented, and, upon motion and vote, adopted:

Resolved, That the Allegan County Medical Society request of the members of the State Legislature from this locality that they vote for an appropriation for a state hospital for the treatment of consumptives, on condition that such hospital be placed under the management and control of the medical department of the University of Michigan.

It was further resolved that a copy of the foregoing resolution be sent to our senator and to both members of the legislature, and also that a copy be furnished to the dean of the medical department of the University of Michigan.

It was also resolved that a copy of the resolution relating to the registration of graduate nurses be sent to the senator and representatives as above.

The following officers were elected for the ensuing year:

President—W. E. Rowe, Allegan.

Vice-President—A. L. Van Horn, Otsego.

Secretary-Treasurer—O. F. Burroughs, Plainwell.

Delegate—A. L. Van Horn, Otsego.

Alternate—O. F. Burroughs, Plainwell.

Board of Censors—M. Chase, Otsego, and C. A. Bartholomew, of Marten.

O. F. BURROUGHS, Sec'y.

INGHAM COUNTY.

The Ingham County Medical Society held its regular meeting March 9, 1905. O. S. Bailey read a paper on "Ergot and Chloroform: Its Use and Abuse."

Abstract:

It is difficult to select two articles of materia medica more generally used by practitioners than the above. They enter into the armamentarium alike of the physician, surgeon and specialist, consequently these drugs are of paramount importance and interest to our profession in gen-

eral. Eighteen hundred and forty-seven marks the dividing line between the pre-chloroform and the chloroform age, although chloroform was discovered in 1831 simultaneously by Guthrie, of United States; Saubierass, of France, and Liebig, of Germany. We owe its name to the eminent physician-poet, Oliver Wendell Holmes. Its introduction to the profession was made by Jas. Y. Simpson, November 15th, 1847. Upon November 10th he entered into an agreement to administer chloroform to a patient for an operation at the Royal Infirmary at Edinburg on November 13, but Simpson was unable to keep his appointment and the operation proceeded as of yore, without anæsthetic, and the patient died on the table. However, upon the 15th he administered chloroform at the infirmary with utmost success, and from that time chloroform took its place at the head of the list of anæsthetics.

You are all conversant with its uses. Yet it may not be improper to mention a few of the minor points as to its use and effect: chloroform easily decomposes when exposed to the air and heat, especially when combined with alcohol, forming carbonyl chloride, which is supposed to cause the "after sickness," which is avoided by filtering lime water through the cone while administering the anæsthetic; a partially filled bottle of chloroform exposed to the light will readily decompose; chloroform and open gas light combine to form a dangerous and obnoxious gas. In 1898 during an urgent operation by gas light in the London Hospital two surgeons and several nurses were overcome and rendered very sick, one nurse succumbing to the deadly gas.

The alarming symptoms of an excess of the anæsthetic are many, but the more urgent ones are *syncope* and *choking*, and with either of these a myriad of other objective symptoms occur. Syncope is said to be caused by paralysis of the splanchnic vaso constrictor nerves of the abdomen, and combined with the weakened heart and often the force of gravity when patient is in a semi-recumbent position, the blood rapidly flows into the large veins of the abdomen, causing bleeding of patient into his own blood vessels as effectually as if a vein was opened. To prevent this condition a bandage and compress to abdomen can be applied; also application of cold water or ice bag to abdomen, and most essential of all, maintain a recumbent position. The *choking* is due to paralysis of glotto-laryngeal nerves and fall of epiglottis over the laryngeal opening, impeding the ingress of air to lung cells; treated by extending the lower jaw forward by pressing at angle of jaw and extending the head upon chest and rythmical traction of tongue.

Those who administer chloroform as an anæsthetic regard the conditions of the pupil of the eye as an indication of the condition of the patient, viz.: If the pupil is contracted and eyeball movable all is well, but if pupil dilates with stationary eyeballs, something is wrong; when choking occurs the lungs are too much saturated with chloroform and oxygen should be permitted to enter lungs; the dilated pupil and stationary eyeball are due to paralysis of third nerve, or *motor-oculi*. Death may follow by cessation of heart's action, or stoppage of respiration, or by both of above conditions at once.

Danger to patient is increased by administering chloroform in a damp atmosphere, causing delayed condensation of chloroform in the air cells, and thus prolongs the stage of narcotism. Syncope attacks under this state of affairs will more rapidly prove fatal. High temperature (60° to 70°) and dry atmosphere favor and hasten anæsthesia and recovery therefrom when desired. Contraindications to administration of chloroform are many. Infancy and old age, extreme fear of anæsthesia, valvular disease of heart, albuminuria, etc., are a few of them. Inflammation of kidney in a subject renders him very vulnerable to the fatal effects of the anæsthetic.

Valvular disease of heart may not be a bar to administering chloroform as an anæsthetic unless the trouble be obstructive. Even then the compensative hypertrophy may avert danger from excessive blood pressure. In all cases the heart should be rhythmical in action. There are operations where it is unnecessary and positively dangerous to administer chloroform. I refer to dental operations and operations upon the eye in a great majority of cases. The recent introduction of local anæsthetics, cocaine, eucaine, holocaine, render it very imprudent to subject the patient to the dangers of chloroform. The upright or partially upright position obtained in these operations are prone, in connection with chloroform, to cause fatal syncope, as indicated previously in this paper. I believe it to be the province of a medical society to discourage the practice of administering chloroform in above-named cases. *Archives of Otolaryngology*, December 8, 1894, emphatically discourages the practice. Chloroform usually given with impunity during childbirth, can, however, be pressed too far even in these cases. To prepare patient for chloroform a spray to nostrils of solution of cocaine (10%) and administration of chloroform in .15 grain dose immediately preceding use of chloroform renders the stage of anæsthesia easily obtained and much safer to subject. In closing I will say that those

who have witnessed the horrible visions of a patient under collapse from chloroform poisoning, compared with which the collapse of a serious accident or a dead faint are but shadows, will exert every effort to prevent such dire results.

Ergot is one of the greatest aids to physician, surgeon and obstetrician. Its action is on unstriated muscular fibres, and has contractile effect upon spinal blood vessels; a powerful vasomotor stimulant. Dose should be cautiously exhibited; if too large it may paralyze the heart. It excites peristalsis of intestines and secretion of urine. Its action is rapid, beginning 15 minutes after dose, and at its height in 30 minutes, and exhausted in one hour, and demands repetition for continued effect. Poisoning by ergot is frequent. It is claimed that "smut rye," or fungus rye, often enters into the cereal foods. The method of preparation prevent its detection if true cereal foods are not the health-producing agents they are thought to be. In closing this subject I cannot refrain from mentioning the beneficial action of ergot, combined with sodium bromide, upon *diabetes saccharimous*, reducing the sugar, decreasing excessive urination, and giving beneficial results that are pleasing.

L. ANNA BALLARD, Sec'y.

KALAMAZOO COUNTY.

The Kalamazoo County Medical Society passed the following resolutions at its last meeting:

WHEREAS, The present law allows three years from date of service in which to begin suit for malpractice against a physician and surgeon, and inasmuch as most charges of malpractice are instigated for purposes of blackmail, or an attempt to evade the payment of a just bill;

WHEREAS, Much evidence and information may be lost on account of the lapse of time;

WHEREAS, One year is sufficient time to develop all the results of professional incapacity or carelessness;

Resolved, That the Kalamazoo County Medical Society, now in session, most heartily endorse the bill now pending before the legislature limiting the time in which action may be commenced to one year from date of cause for such action.

Resolved, That a copy of these resolutions be sent to our representatives and senator, with a request that they use all honorable means to secure its passage.

O. H. CLARK, Sec'y.

LENAWEE COUNTY.

The Lenawee County Medical Society held its regular meeting March 14, 1905. The society endorsed the movement for a tuberculosis sanatorium.

E. T. MORDEN, Treas.

OAKLAND COUNTY.

The regular meeting of the Oakland County Medical Society was held in Pontiac, March 14, 1905. The society passed resolutions favoring the proposed legislation to create a state sanatorium for the treatment of tuberculosis in its early stage and other resolutions calling for legislation to shorten the time to one year during which suits for malpractice must be brought. A biographical sketch was read of Dr. J. P. Wilson, retired, of Pontiac, and Dr. Wilson was made an honorary member by unanimous vote.

M. A. GRAY, Sec'y.

O. M. C. O. R. O. COUNTY.

At the meeting of the O. M. C. O. R. O. Medical Society, held at West Branch, March 15th, 1905, Frederick W. Robbins, of Detroit, read a paper on "The Diagnosis and Treatment of Certain Diseases of the Kidneys, Bladder and Prostate Gland."

Abstract:

He first stated that most of these diseases are at some time in their natural course medical and at another surgical in character. The art of diagnosis must be still further improved that at the earliest possible moment cases may be removed from the doubtful class and positively classified as surgical or medical.

After speaking of the information obtained by palpation he considered the symptomatology of surgical kidney disease and examination of the urine obtained from each kidney separately by segregation or urethral catheterization.

While dwelling upon foreign bodies in and pathological conditions of the bladder, including neoplasms, it was with considerable feeling that he advocated cystoscopic examination whenever for a considerable time and from unknown cause pus is found in the urine.

He feels that by such means alone can we discover a neoplasm sufficiently early to give any hope of cure by removal, and unless removed most so-called benign papillomata degenerate into carcinomata. If this happens operation will nearly always be a palliative, not a curative measure.

Then after exhibiting several interesting pathological specimens he reviewed the various forms of prostate hypertrophy and the treatment palliative or operative indicated in each, and closed as follows: "Thus I have attempted to show that in any case where pus is continuously in the urine and inflammation of the lower urinary tract be excluded there is in all probability some serious trouble present; that cystitis is usually secondary to some other lesion, that such lesion must be searched for and discovered. If tubercular, operation may be of great benefit, if papillomata of bladder the only hope of prolonging life is early operation, if calculous formation in kidney or bladder operation will cure, if prostate hypertrophy prostatectomy may cure or palliative measures much improve."

C. C. CURNALIA, Sec'y.

SHIAWASSEE COUNTY.

The Shiawassee County Medical Society met March 7, 1905. James A. Rowley read a paper entitled "Osteosarcoma of Tibia."

Abstract:

A sarcoma is a tumor composed of embryonic tissues of mesoblastic origin, always malignant, but often varying in degree of malignancy. Structurally sarcomata are formed of spindle, round, or giant cells imbedded in an intercellular meshwork. These tumors are very vascular, their blood supply depending on capillaries, which consist of one layer of endothelial cells or often the walls are entirely absent, the blood flowing between the cells of the tumor.

The metastasis of sarcomata takes place by the blood vessels, infection of the lymphatics being infrequent. The growth generally penetrates a vein, forming a bud of sarcomatous tissue on its inner surface, which is swept away into the general circulation, giving rise to secondaries in other parts of the body. Such an embolus must pass through the minute capillaries of the lungs before again entering the general circulation, and this accounts for the relative frequency of secondaries in that organ. Yet in many cases they escape entirely, while other organs do not.

Sarcomata may be found in all the organs of the body, the bones, testicles, ovaries, breasts, and uterus. Multiple sarcomata are found in the skin in form of numerous small growths, and may give rise to internal secondary deposits.

The clinical history and appearance of sarcomata varies greatly. They occur at all ages, but are more common from puberty to the thirtieth year. Generally speaking, the growth is very

rapid and painful. Ulceration does not occur until late, if at all, and is unlike that of carcinomata, in which the skin actually becomes involved in the growth and then breaks down. In sarcomata of the internal organs a rise of temperature resembling pyemia, tuberculosis or typhoid fever often takes place.

The course of a sarcoma depends largely upon its structure. Thus the round-celled variety are more malignant than the spindle-celled, and both of these more so than the giant-celled. Some tumors run a course of great rapidity, the growths spreading through the tissues almost as rapidly as a purulent infiltration, and secondary tumors appearing at once in distant organs. Others grow more slowly, give absolutely no symptoms, and sometimes remain stationary in size for years, until some blow or unknown cause brings out their malignant character.

Sarcoma of bone or osteosarcoma occurs in both flat and long bones, and may develop centrally or in the periosteum. It may be round, spindle, giant, or mixed-celled. Central tumors are generally symmetrical and form pulsating tumors, owing to their vascularity, while periosteal tumors generally grow from one side of the bone, and are therefore asymmetrical. They usually cause great pain, especially if originating centrally, and cachexia, with marked blood changes, may develop early. Fracture of the bone is common in the central variety. Melastasis occurs in all forms, some other bone being frequently involved. Recurrence or death is common in all cases, even after amputation.

Thorough extirpation is the only effective treatment of sarcoma. In sarcomata of the extremities amputation of entire bone and joint above is the only safe procedure. Surgical treatment at present seems to be the only one worth considering where it can be employed. The X-ray may give better results in the future, but as yet offers nothing satisfactory. A number of cases have been recorded in which sarcoma and carcinoma disappeared after attacks of erysipelas, and from this sprang the treatment of inoculating patients with the germs of that disease, but results were uncertain and risks considerable, and at present most authorities condemn the treatment, so at present surgical treatment, when it can be used, is all that we can offer to these unfortunate patients.

Report of Case.—Patient B. G. Boy, age 16, American, weight 126. Previous history good. Had diseases of childhood. Family history, father living, health good; mother died in asylum for insane; two sisters, both healthy; no history of hereditary diseases in family. Present

trouble began in spring of 1903, about four months before Dr. Fair and myself saw the patient. Patient first felt a dull, aching pain in right leg, midway between knee and ankle; described it as leg-ache, and thought it due to his work, as he was employed at plowing and harrowing. Several weeks later noticed that leg was swelling in region of the pain. This swelling gradually increased and pain grew more severe, but boy continued to work, and after trying home remedies consulted a doctor, who poulticed limb and afterward lanced swelling, obtaining no pus, but a free venous hemorrhage. Patient first called at our office July 5, 1903, complaining of pain and swelling of the right leg. He appeared pale and emaciated; much loss of sleep. Temperature 100°, pulse 90. Inspection showed asymmetrical enlargement on anterior surface of right leg four inches below patella. On palpation tumor was smooth, of varying consistency, non-fluctuating, not painful on pressure, much local heat. Integument over tumor free, adherent to tibia, no enlargement of glands of popliteal space or groins. Examination of abdomen and chest negative. History as to cause indefinite; patient remembered of receiving blow across legs several months before present trouble, but considered it trivial, as he was only slightly lame for a few days.

An exploratory operation was made on July 10th. Dr. Fair made incision four inches long, beginning two inches below patella and extending downward over crest of tibia through median line of tumor. We found periosteum stripped from tibia and bone necrotic as far as incision extended. The tissues forming enlargement consisted of a very vascular growth infiltrated with bone cells, and microscopically seemed to be a hypertrophy of periosteum and muscles overlying. The shaft of the tibia was curetted, leaving large cavity, which was irrigated with bichloride solution and packed with sterile gauze and wound closed with sterile adhesive strips. Character of growth made amputation imperative as soon as patient was in condition.

Microscopical examination of section of tumor showed it to be a mixed-cell sarcoma with spindles and giant cells predominating, and apparently originating from periosteum of tibia. Patient suffered very little shock from the operation, but lost considerable blood. Patient placed on iron in increasing doses, strychnine nitrate grain 1-40 three times daily and generous diet. Wound was irrigated and repacked every second day. On July 28 we amputated at junction of middle and lower third of femur. Patient stood amputation well and made uneventful re-

covery, and was discharged August 26. At that time examination of chest, abdomen and lymphatics negative.

On December 14, 1903, or 136 days after amputation, we were called to see this patient again and found him complaining of pain in left knee, which he thought was due to fall received a few days before while entering passenger coach. Knee was slightly swollen and inflamed. Knee was treated for sprain, with no relief whatsoever. Continued to increase until it reached three times normal size, and appeared as a symmetrical tumor of same macroscopical characteristics as that involving amputated leg. Three weeks after knee began to enlarge circumscribed swelling appeared at each wrist. These did not increase with the same rapidity as that of knee joint, but caused patient considerable pain. Palpation of abdomen at this time showed enlargement of liver, with many nodules along lower border. Patient lost rapidly in weight, suffered severe pain, developed septic temperature; rapid, irregular pulse; delirium; enlargement of inguinal glands; no ulceration of tumors. Patient died during May, 1904. No autopsy could be obtained.

P. S. WILLSON, Sec'y.

Medical News.

The Chicago Medical Society contemplates organizing a business bureau for the transaction of business. The reasons for advocating the measure are as follows: (1) To do collections at a moderate charge as possible, which could be done if all the members in good standing patronize the bureau; smallness of the percentage charge would be an inducement to put bills in the bureau earlier for collection than is now done with independent agencies. (2) To probate bills at the least possible cost. (3) In case of sickness or death of the members of the profession the bureau would make up his books, collect and bank the money, thereby giving great aid to the family; this same may be said of men desiring to go on much-needed vacations for recuperation or for scientific advancement. (4) The bureau generally would up a comparatively small charge, transact any business whatever pertaining to its members in good standing. (5) The society would have at its disposal an office that will be able to do much other work, as the tabulation of midwives, the investigation of the unprofessional conducting many institutions, the compilation of an official directory and many other things for the best interests of the profession.

At the last regular meeting of the Oakland County Medical Society Dr. John P. Wilson, of Pontiac, was made an honorary member. The following brief biographical sketch was presented and ordered made a part of the permanent records of the society.

Dr. John P. Wilson, the son of Dr. William Wilson, was born in Scotland, in 1828, and came to this country in 1844. He was graduated in medicine from the College of Physicians and Surgeons of New York City in 1851. After completing his medical studies he practiced with his father until 1856, when he came to Pontiac and formed a partnership with Dr. I. Paddack. In 1859 Dr. Wilson started a drug store at No. 7 North Saginaw street, which under different proprietors has continued till the present.

When the Fifth Michigan Cavalry was formed during the civil war Dr. J. P. Wilson was commissioned regimental surgeon by the governor of the State, serving in this capacity until March, 1863, when, on the formation of the Michigan Cavalry Brigade, under General Custer, he was made brigade surgeon. Assuming the duties of this rank, he organized the Brigade Hospital at Fairfax Court House, Virginia, where for three months he personally cared for a large number of sick and wounded soldiers. He was with the Army of the Potomac at the battle of Gettysburg, but soon after was stricken with typhoid fever and for many weeks was seriously ill near this historic battlefield. He was subsequently removed to Annapolis Hospital for medical treatment, where he was honorably discharged in October, 1863, with his health seriously and permanently impaired. Dr. Wilson knew whereof he spoke when he penned these words: "If the wrecks of that awful war could be summed up, there would be presented a powerful argument for peace among the nations."

For five years after his discharge from the army, Dr. Wilson endeavored to recuperate his health; he then resumed the practice of his profession in Pontiac, but physical infirmities contracted during his military career, together with increasing deafness, made it necessary for him to give up all active business in 1880 while yet in his prime, and when he, but for those infirmities, was prepared to do the best work of his life.

As a physician and surgeon Dr. Wilson was skilful and successful. He served his country well as military surgeon; he has since served his state as a member of the Board of Trustees of the Eastern Michigan Asylum; and he has served his city in various ways. For many years (18) he was a member of the Board of Education, he organized the first Board of Health

in the city of Pontiac and he is at present a member of the Board of Control of Cemeteries, having been a member of that body since its creation by a special act of the Legislature in 1885. Dr. Wilson is and for long has been an important factor in this community. His services to his country, state and city are duly appreciated, but beyond these he is respected by all for the genuineness and uprightness of his character.

Dr. O. L. Ricker, of Cadillac, Mich., class of 1904, Detroit College of Medicine, member of the Phi Beta Pi fraternity, secretary-treasurer of the Tri-County Medical Society, and member of the State Medical Society, was married at Cadillac on March 21, 1905, to Miss Nellie B. Shupe, of Fostoria, Ohio, daughter of Mr. and Mrs. J. P. Shupe, of Fostoria. Dr. and Mrs. Ricker will be at home at 617 Cherry street, Cadillac, Mich.

A memorial tablet for the late Dr. N. S. Davis was presented by the senior class of the Northwestern University Medical School, March 24, in Dean Hall. The tablet bears the inscription: "Good and great, he maketh the earth wholesome."

Dr. C. A. L. Reed's publication of his report to the War Department on sanitary matters at Panama, in the *Journal of the American Medical Association* seems to have been displeasing to the Government. It would have preferred to receive his report and publish it when and where it desired. The old Panama Commission has been discharged, but we do not observe any doctor in the new one, yet the canal can never be dug with either dead or sick men. A wise doctor with abundant authority is alone able to ensure the smallest death rate and most vigorous health, and so the most economical prosecution of the work. The American Government, including President Roosevelt, as yet fails to make the best use of the doctor. In Japan they seem to do things better. In both the army and navy of the United States the doctor lacks the power to adequately provide for the greatest efficiency of the soldiers—vide the Cuban war, or any other American war.

Lewellyn S. Barker, professor of medicine at Chicago University, has been chosen to take the chair of medicine at Johns Hopkins Medical School, made vacant by the resignation of William Osler. Dr. Barker received his education and medical degree at Toronto University. He was associate professor of anatomy and later associate professor of pathology at Johns Hopkins Medical School. He left there to become professor of Anatomy at Chicago University. Recently

he was appointed professor of medicine at that institute. His training has been very much along the line that prepared Dr. Osler for his life work. As a writer he is well known. Among the works of his pen are "Diseases of the Nervous System," "Manual of Anatomy," etc.

William S. Thayer has been appointed professor of clinical medicine at Johns Hopkins Medical School.

The Henderson County, Ky., Medical Society determined recently to present the name of Dr. Ephraim McDowell for one of the statues in the National Hall of Fame.

Dr. Henry H. Kane and his assistant, William H. Hale, having confessed to obtaining \$10,000 from a Mount Vernon carpenter by an alleged radium cure in which there was no radium, were sentenced to serve four and eight months in the penitentiary. As restitution had been made to the victim, the court showed clemency in imposing the sentence.

In the suit of John M. Casey, of Stillmore, against Drs. Leonidas P. Lane, of Stillmore, and G. L. Smith, of Swainsboro, in which he claimed \$20,000 damage for the alleged negligence, incompetence and lack of skill of these physicians in treating compound, communicated fracture of both legs, the jury found for the defendants.

"Dr." Frederick L. Orsinger on March 24, was fined \$200 for practicing medicine without a license. The prosecution was undertaken by the State Board of Health.

The legislature of the State of Pennsylvania passed a bill March 21, providing that it shall be compulsory for institutions in the state which are interested exclusively with the care of idiots and imbecile children, to appoint on their staffs at least one neurologist and one surgeon, whose duty it shall be to examine the mental and physical condition of the inmates. If in their judgment they deem it advisable, it shall be lawful for the surgeon to perform such operations as are safest and most efficacious to prevent procreation. The operation shall not be performed except in cases that have been pronounced non-improvable after one year's residence in the institution. The Governor vetoed this bill.

Ground was broken for the new Manhattan Eye and Ear Hospital on East Sixty-fourth Street on March 23. The new building will extend through Sixty-third Street and is located between Second and Third Avenues. The ground for the new building cost \$125,000, and the

estimated expense of the new building, completely equipped, is \$600,000. Sixty rooms for private patients and ward room for 150 patients will be provided, besides quarters for the large out-patient service. The present location is at Forty-first Street and Park Avenue.

The Journal of Experimental Medicine will be published under the auspices of the Rockefeller Institute for Medical Research, New York, and edited by Drs. Simon Flexner and Eugene L. Opie.

The bill to establish a national sanatorium for lepers failed to pass Congress.

New York hopes to abolish its antiquated coroner system this year. How much longer must Detroit stagger under its incubus?

The average admission of patients to Bellevue Hospital is ninety per day this year.

Mt. Sinai Hospital, New York, has an association membership each paying annually from ten dollars up—in the aggregate \$120,000 last year.

For the week ending March 25th there were eight-five deaths from cerebro-spinal meningitis in New York City.

On Feb. 20th died the oldest inhabitant of New York City, aged one hundred and eight. His wife died twelve years ago, aged ninety-eight. The first fifty years of his life was spent in Ireland. His name was Joseph McGrath.

Dr. Russell Murdock died in Johns Hopkins Hospital, March 18th, aged sixty-six, from apoplexy. His eye speculum is well known to ophthalmologists. He was a founder of the Baltimore Eye and Ear Hospital.

Dr. W. H. Park, of the New York City Health Board, found that the inoculation of a clean paper dollar with diphtheria bacilli was followed by their recovery at the end of a month. From pennies, dimes, and nickels placed in the mouths of diphtheria patients no bacilli could be obtained twenty-four hours afterwards. In the paper money death by bacilli was by drying; in metallic by poison generated by moisture on the coin. From money taken at a cheap jewelry store, dirty pennies averaged 26 living bacteria apiece; dimes, 40; moderately clean bills, 1,250, and dirty bills, 73,000. The obvious conclusion is that soiled paper money should be withdrawn from circulation as soon as possible.

The Scientific Exhibit at the Annual Meeting at Petoskey.

A. S. WARTHIN, M. D., Chairman, Ann Arbor.

P. M. HICKEY, M. D., Detroit.

D. M. COWIE, M. D., Secretary, Ann Arbor.

An unusual effort will be made this year to make the *Scientific Exhibit* at the annual meeting of the Michigan State Medical Society especially attractive and instructive. It is proposed to confine the exhibit entirely to diseases of the "Gastro-intestinal Tract." There will be sections on Diagnosis, Pathology, Treatment (medical and surgical), etc.

Dr. Cowie is at work on the questions in relation to diagnosis and will present a collection of casts and illustrations of stomach-analysis, etc. Dr. Hickey will give an exhibit of the application of the X-rays to the diagnosis of diseases of this tract. Dr. Darling has promised to illustrate some surgical methods, and other prominent surgeons will be asked to do the same. Dr. Warthin will furnish a representative set of pathological specimens and it is proposed to ask prominent drug houses to furnish under proper regulations cabinets of the crude and finished drugs used in the treatment of diseased conditions of the alimentary tract.

Should the contributions meet the expectations of the committee, an evening will be devoted to the presentation of the subject.

It is earnestly hoped that contributions will be offered by the members of the Society. Those offering will please *communicate at once with Dr. A. S. Warthin*, Pathological Laboratory, University of Michigan, Ann Arbor, Michigan.

The regular meeting of the State Board of Health was held in the Secretary's office, Lansing, April 14, 1905. The members present were: Dr. Victor C. Vaughan, President; Hon. Henry A. Haigh, Charles M. Ranger, Hon. Coleman C. Vaughan, Dr. Angus McLean, Dr. Malcolm C. Sinclair and Dr. Frank W. Shumway, Secretary. Dr. Vaughan urged the advisability of this Board putting forth every possible effort to secure legislation providing for a State sanatorium for consumptives, and in this connection Dr. Vaughan also mentioned the importance of collecting reliable statistics on the geographical and class distribution of the disease which would be of great assistance in ascertaining important facts on the prevalence of consumption. Such statistics would also enable this Board to work intelligently for the restriction of this disease and in securing legislation providing for a State sanatorium. Many of the States have such institutions, notably among those mentioned being Massachusetts, New York, Pennsylvania, Ohio

and New Jersey, while many other States have bills before their State legislatures providing for similar institutions. Dr. Vaughan suggested that a feature of the work of this Board for the next two years be the special study of tuberculosis and to ascertain if the prevalence of this disease in Michigan is increasing or decreasing.

The work of this Board for the restriction and prevention of pneumonia was considered of great importance and should be continued, as deaths from this disease are rapidly increasing, and its cause and means of spread are problems that this Board might properly consider.

Dr. Vaughan also mentioned the important line of work carried on through the distribution of the Teachers' Sanitary Bulletins, and the good results that have been accomplished through this work of the Board.

The Board arranged the details for holding the Annual Conference of Health Officials, June 1-2, at the State Laboratory of Hygiene at Ann Arbor.

The Board decided to hold a meeting to conduct an embalmers' examination following the meeting of the State Funeral Directors' Association in June or July.

Dr. Sinclair, of Grand Rapids, presented resolutions adopted by the local board of health of the city of Grand Rapids in which it was stated that the local board of health had taken proper steps, as advised by the State Board of Health, to abate the conditions leading to the contamination of the water-supply of the City of Grand Rapids. Dr. Sinclair's report was accepted.

This meeting being the annual meeting of the Board, and the time for election of president, Dr. Vaughan, who had been elected as president at the regular meeting of the Board January 20 to fill vacancy caused by the death of Hon. Frank Wells, was unanimously re-elected president of the Board for the ensuing two years. Dr. Vaughan thanked the Board for the honor conferred upon him, after which the Board adjourned.

James J. Hurley, who died in Flint, April 4, 1905, left a bequest of \$25,000 to found a hospital for this city.

The National Medico-Psychological Association, which met during April at San Antonio, Texas, has elected as President, Dr. C. B. Burr, of Flint.

The Sixth Councilor District Medical Society will meet at Durand, May 11, 1905, at 7:30 p. m. A great deal of interest is being taken in the meeting and the committee in charge (P. S. Willson, H. R. Niles, W. H. Gale and R. H. Baird) has received assurances of a good attendance of the members. Many of the state officers and councilors will be present.

It is said that Drs. William H. Welch, William S. Halstead, Howard A. Kelly and William Osler, all of the original faculty of Johns Hopkins Medical School, will meet in London during

June and will then sit for a group portrait, to be painted by John S. Sargent. The idea originated with Miss Mary E. Garrett, of Baltimore, who will bear the expense of the painting. Dr. Osler's departure is the first break in the original faculty of the medical school.

Miscellaneous.

CHANGE IN MEMBERSHIP.

(March 15th to April 15th.)

NEW MEMBERS.

Helen A. Beadle, Sault Ste. Marie, Mich.
C. E. Beeman, Evart, Mich.
A. L. Brannack, Byron, Mich.
A. G. Burwell, Byron Center, Mich.
A. J. Carlson, Trenary, Mich.
J. H. Carters, Gaylord, Mich.
W. J. Conover, Evart, Mich.
J. B. G. Dixon, Bad Axe, Mich.
F. Edmister, Port Huron, Mich.
Mary Green Fiske, Charlotte, Mich.
R. F. Foster, Bear Lake, Mich.
Wm. Hake, Grand Rapids, Mich.
Abram B. Hixon, Grand Ledge, Mich.
W. B. Holdship, Ubly, Mich.
S. E. Hooper, West Branch, Mich.
A. J. Irwin, Port Huron, Mich.
Minta Kemp, Sault Ste. Marie, Mich.
W. T. King, Calumet, Mich.
C. B. McKinzie, Harbor Beach, Mich.
G. P. McNaughton, Sault Ste. Marie, Mich.
Fred Robinson, Sturgis, Mich.
F. D. Smith, Coopersville, Mich.
A. M. Switzer, Grand Rapids, Mich.
C. B. Toms, Big Bay, Mich.
L. H. Tower, Centerville, Mich.
Gertrude Wilcox, St. Louis, Mich.
F. C. Wiley, Pinnebog, Mich.
J. M. Wilkinson, Evart, Mich.

CHANGE OF ADDRESS.

G. H. Bunch, Columbia, S. C.
A. F. Fischer, Hubbell, Mich.
L. Fleckenstein, Vernon, Mich.
E. A. Schilz, Grand Ledge, Mich.

DIED.

H. B. Anderson, Traverse City, Mich.
J. W. Kirtland, Lakeview, Mich.
A. Toal, Peck, Mich.

BOOKS RECEIVED.

MALFORMATIONS OF THE GENITAL ORGANS OF WOMAN. By Prof. Chas. Bebieerre. Translated by J. H. C. Simes, M. D. P. Blakiston's Son & Co., Philadelphia, 1905.

DISEASES OF THE HEART. By E. H. Colbeck, A. B., M. D. W. T. Keener & Co., Chicago, 1905.

THE OPEN AIR TREATMENT OF PULMONARY TUBERCULOSIS. By F. W. Burton-Fanning, M. D. Cantab. W. T. Keener & Co., Chicago, 1905.

A HAND-BOOK OF NURSING. Revised Edition. Published under the direction of the Connecticut Training School for Nurses. J. B. Lippincott Co., Philadelphia and London, 1905.

Correspondence.

EDITOR:

My attention has been directed to a lengthy editorial published in the February number of the *Physician and Surgeon* (Ann Arbor), criticising an address made by me at the meeting of the Eighth District Medical Society, Saginaw, December last, and published in the February number of the *Journal*, under the title of "Criticism of the Reasons for the Regents' Order of Gratuitous Treatment of all Cases at the University, and a Practical Remedy Suggested."

My first impulse upon reading the article was to treat the matter philosophically, and let the article in question pass for its face value without comment, from the fact that further than some unfair and strained comments and deductions relative to myself personally and my treatment of the subject, the material questions involved in my address were discussed from such a narrow and prejudiced standpoint that I hardly thought the editorial in question deserving of recognition or serious consideration at my hands, and I could not see how the subject could be benefited by further discussion, but I have received so many letters from graduates and friends of the University, in which the editorial complained of has been unsparingly criticised, that I feel constrained, therefore, somewhat reluctantly, to treat the matter more seriously than I otherwise should if I solely consulted my personal inclinations in regard to the article.

In my address referred to I called attention, among others, to the following undisputed facts in connection with the question of "Gratuitous medical and surgical aid to all persons applying for same, including those persons who are quite able to pay for such services" at the hospitals controlled by the Board of Regents, and which question at the time of the address was receiving a great deal of consideration and criticism at the hands of the profession of the state:

1. The necessity of the Board of Regents supplying the medical department of the University with clinical material of sufficient quality and quantity, hence the objected order of gratuitous attendance by the faculty.

2. Notwithstanding the order complained of, scarcity of clinical material obtainable at Ann Arbor.

3. Quality of clinical material obtained defective and altogether unsuitable for clinical purposes.

4. In consequence, a large percentage of matriculants transferring to other schools at end of

second year owing to such defect in quantity and quality of clinical material.

5. Standing of medical graduates of the University of Michigan before army, navy and state examining boards unsatisfactory in those subjects in the medical course requiring certain quantity and quality of clinical material.

6. Suggested remedy: Removal of clinical course to Detroit, where an abundance of clinical material could be obtained under most favorable conditions, not the removal of the objected order of gratuitous treatment, which was not objected to or unfavorably criticised in my address.

In criticism of the above facts or statements as outlined under the six divisions, the editorial in the *Physician and Surgeon* admits the truth of the statements under divisions 2 and 3 and states that these statements will also probably be admitted by the University authorities. The remainder of the article is devoted, in as far as my address is concerned, as summarized in the above statements, to the general denial that any considerable number of patients admitted to the hospitals at Ann Arbor are really *wealthy* and to a contradictory statement that *well-to-do* patients form a material part of and make most excellent clinical material at Ann Arbor.

The article in question certainly is the reverse of frank and honest in its general discussion of and its denial of the statement of "Gratuitous medical and surgical aid to all persons applying for same, including those persons who are quite able to pay for such services," in the following language:

"It was shown that most of the patients did pay, but very few of them are really *wealthy*."

* * * "Recently, Superintendent Gilmore said, two hundred patients in succession have been investigated, and the only one who could be called rich was brought in again by a physician, his own son. Such admissions are doubtless irregular in order, and it might happen that investigations at other times would show a larger proportion, but most of the cases would be of the kind just mentioned or else the sons or daughters of well-to-do or rarely wealthy men who were sent in also as emergency cases by their attending physicians." * * * "At various times efforts have been made to get exact figures at the hospital regarding attendance by rich people. Several years ago when resolutions were sent in by certain county medical societies the finances of the patients were investigated, and the only one that could be called rich, a man said to be worth \$80,000, was one who was brought to the hospital as an emergency case by a physician in the county in which the agitation had begun."

It is to be noted that the article devotes considerable time and space in attempting to prove that very few of the cases are wealthy or millionaires, whereas, my statement covered only cases, "who are quite able to pay for such services," for it matters not if these cases are "millionaires," "wealthy," "well-to-do" or are only sufficiently well off to pay for medical services, through themselves or through their relatives or friends. From a material and practical standpoint these cases are wealthy who can, even with self-denial, pay for services rendered, and the article not only begs the question, but also is guilty of mis-quoting me when it discusses the question of free treatments from any other standpoint.

The article again states that he, Dr. Harison, thinks it "a waste of time to discuss the point that patients able to pay for medical services would either make suitable cases for teaching purposes, or that such cases, even if suitable, would submit to the status of a clinical hospital case." * * * "Here he is wide of the mark, as he could convince himself by a visit to the University Hospital." * * * "He could see that the patients there make most excellent clinical material. He could occasionally see the sons of well-to-do farmers being examined in every detail, percussed, auscultated and demonstrated by and before under-graduates. He could see an ex-member of the state legislature giving daily demonstrations of his smallpox lesions to classes of students, quite as well as a pauper could, et cetera."

The above quotation is rather ingenious in view of the fact that the article devotes very considerable space in the attempt to prove that my statement "Gratuitous medical and surgical aid to all persons applying for same, including those persons who are quite able to pay for such services," is not founded on fact.

Again, the article states:

"Dr. Harison's admission that he knows very little of the details of the question he discusses is surprising, because the work of the University is not done in the dark, and because the Board of Registration is supposed to have authority to investigate medical schools in the most minute degree."

This is an example of several similar criticisms and misinterpretations of my address. In such address I stated that I knew very little of the details of gratuitous medical and surgical aid at the University to those persons who were able to pay for such services. It is not necessary in discussing the question of free treatment that I should know such details, but nothing in the language used by me should convey the impres-

sion that I admitted ignorance of the details of the questions involved in the free treatment of the well-to-do.

Again, I find the statement:

"Dr. Harison also considered what he called the solution of the remedy for the condition he finds, namely: Lack of material. (In passing, it should be said that he is very far from right in intimating that the Regents devised the remedy. The Regents did not, as so freely charged, make a new rule last summer. They simply reaffirmed an old one to answer a definite question." * * * * *).

The above illustrates the admixture of the affirmative and negative so liberally in evidence, and is characteristic of the argument throughout the entire article. The Regents did not, according to the article, devise the remedy, because the order was not made last summer, but was made by them some time previous to last summer. In my address in discussing the Regents' order no statement of a recent order was made. The following language was made use of by me: "became necessary for the Regents to issue the order involving gratuitous medical and surgical aid," et cetera.

I merely call attention to the above irregularities of thought and construction, if I may call them such, not that they are at all material to the proper consideration of the questions involved, but simply to illustrate the prejudice and bent of the writer of the article, and in this connection I might suggest that his advice concerning the proper use of my position in relation to promoting measures for the public good is not appreciated by me to the extent it would otherwise have been, provided his criticism had been consistent with a conscientious effort to discuss my address from the standpoint of fairness to myself and exact justice to the very important subject at issue.

In contradiction to the article in the *Physician and Surgeon*, one of the leading members of the medical faculty of the University writes me:

"Permit me to say that I think I am heartily in accord with your general line of treatment and congratulate you on the temperate manner in which you handle it."

R. B. HARISON.

Sault Ste. Marie, Mich., April 12, 1905.

Editor: I want to express my thorough appreciation of the editorial on "A Doctor May Teach Without a Professorship."

I have not read anything more sane, wise and true in a long time.

Yours sincerely,

DAVID INGLIS.

Detroit, April 1, 1905.

Book Notices.

Under the Charge of

RAY CONNOR.

STUDIES IN GENERAL PHYSIOLOGY. By Prof. Jacques Loeb. 772 pages. 162 illustrations. 2 vol. Cloth, \$7.50 net. The Decimnal Publications. Second Series. Vol. XV. The University of Chicago Press, 1905.

These studies are a collection of papers on the subject of general physiology which have appeared from time to time in various places from the pen of Prof. Loeb. A large number originally appeared in German and have been translated by Prof. Martin H. Fischer. Although on widely different subjects, a single idea permeates all, namely, that it is possible to get life-phenomena under our control and that such control is the aim of biology. The so called mechanical explanation of life has been a very fruitful source of inspiration to modern physiologists. As long as all life could be assigned to the action of an unknown and unknowable "vital force," there was little stimulus to the investigation of physiological problems. It is only when a physical basis of life is recognized that intelligent efforts have been made to solve these questions in accordance with known chemical and physical laws. Prof. Loeb has gone farther than most in these studies and his work has been widely exploited through the secular press.

It is with pleasure therefore that we see that the University of Chicago has gathered these important studies together in an English edition easy of access for us all. Perhaps no class of men are more interested in the fundamental questions of physiology than physicians, unless we except biologists. These studies will doubtless find a large and appreciative audience amongst the educated physicians of this country.

There are some thirty-eight chapters in these two volumes, covering a wide range of topics. The physical basis of motion is first considered and heliotropism of animals is compared and identified with that of plants. The author endeavors to account by physical causes such as light, gravity, friction, chemical forces, etc., for the actions of animals which others have taken for the effect of "will" and "instinct." It is perhaps in the studies of regeneration where the most sensational results are obtained. This problem is approached by experiments on heteromorphosis. Prof. Loeb has succeeded in finding an animal, a Tubularian, which could be so altered by artificial means, as to terminate in a head at both its oral and aboral ends. The results

with the eggs of sea urchins have already become well known. Unfertilized eggs immersed in a sol. of $Mg\ Cl_2$ and sea water for two hours segmented and developed into normal plutei. Every precaution was used in these experiments to guard against artificial fertilization. Later investigations show that other chlorides such as $NaCl$ and KCl can be substituted for the $Mg\ Cl_2$.

It is of course impossible to even hint at all the points of interest in these two volumes. Whether the writer's conclusions are entirely acquiesced in or not, the experimental data given is full of great interest in its bearing on far reaching and fundamental questions.

THE OPHTHALMIC YEAR-BOOK. By Edward Jackson, A. M., M. D. 260 pages. 45 illustrations. Cloth, \$3.00. The Herrick Book and Stationery Co., Denver. 1904.

This innovation in the field of ophthalmic publications will be hailed with gratitude by a large number of busy practitioners whose time and resources preclude their consulting all the important original publications as they appear. Dr. Jackson attempts to furnish his readers with two things: First a critical digest of the most important literature of the past year, sufficiently complete to be of service without reference to the original. Second, a list of the more important original communications appearing during the year. That this work has been well done need not be said to those who know the author. The arrangement of the book is simple and practical, rendering it easy to use for reference and saving a vast amount of labor.

The mechanical features of the work are well done. The illustrations while not very numerous are well chosen and help out the text. It is to be devoutly hoped that these publications may receive such a generous support as to ensure their permanence for many years to come.

GARRIGUES' GYNAECOLOGY. By Henry J. Garrigues, M. D. Octavo, 460 pages. 343 illustrations. Cloth, \$3.50. J. B. Lippincott Co., New York. 1905.

Garrigues' Gynaecology, a book of some four hundred and fifty pages, is intended as a short treatise for students and practitioners. It contains the essentials of gynecology and its teaching is, for the most part, rational and up-to-date. As is stated in the preface, "it is calculated to be a guide for beginners" and, as such, it is a success. Minor operations are well described, while

only the main features of the major procedures are given, a wise arrangement for a book covering this field.

Diseases of the bladder and rectum are included. The section on cystoscopy, especially that relating to the Kelly method, is based on Kelly's earliest articles, from which the illustrations are taken. None of the improvements, made in the past ten years, either by the originator or others, are included, nor is the section on electric cystoscopy what one would expect in a nineteen hundred and five publication.

In the section on technic, the author says: "Some operators also use rubber gloves, but they interfere seriously with delicate touch, and many have given them up or never adopted them." This should read, in our opinion, "Many operators also use rubber gloves, although they interfere slightly with delicate touch. A few have given them up or never adopted them," or better, "rubber gloves should be used in every major operation."

There are 343 illustrations, about one-third of which are taken from the author's "Diseases of Women." The cuts are very uneven in quality.

The text is well edited; the paper and binding good.

B. R. S.

THE MEDICAL EXAMINATION FOR LIFE INSURANCE, with Chapters on the Insurance of Sub-standard Lives and Accident Insurance, by Charles Lyman Greene, M. D. Second Edition. Revised and Enlarged, with 99 illustrations. \$4.00 net. Philadelphia, P. Blakiston's Sons & Co. 1905.

The rapid strides made by the ever increasing old line insurance companies, especially in this country; the extension of the benefits of insurance to sub-standard lives; the appreciation by the masses of the value of life insurance not only as a protective feature, but as a safe investment; all have rendered the medical examiner an important attribute and his selection the careful study of the medical department of these large life insurance companies. Where appointed the well trained, conscientious, politic physician is certain of a permanent and remunerative practice.

In this volume, the need of which no one appreciates better than the old examiner who has gained his knowledge in the field of daily experience, Dr. Greene details in his clear style the nature and growth of life insurance; defines the medical examiner's qualifications and sets forth his problems and responsibilities; reviews with him and explains in detail the questions usually demanded of the examiner, elucidating especially the physical examination of the different viscera; defines sub-standard yet insurable lives; and devotes a chapter to the increasing importance of accident insurance.

Especially clear are the chapters devoted to the physical examinations of the heart and lungs, which, though avowedly written for the under graduate and the young physician, will be appreciated by the older practitioner.

In every respect the book is well written, full of useful information, of clear type and good illustrations.

A. P. B.

THE INTERNATIONAL MEDICAL ANNUAL. A Year-book of Treatment and Practitioner's Index. By thirty-six department editors. 5 vo., about 600 pages. Thirty plates, 54 diagrams. Cloth, \$3.00 net. E. B. Treat & Co., New York. 1905.

This volume marks the beginning of a new series. As the amount of literature has increased with the twenty-three years' life of the annual, new pages have been added and the paper made thinner. This no longer suffices, and it has been found necessary to increase the size of the page in order to retain the proper proportions of the volume. The contributors to this number are chiefly Englishmen, although this country and Germany are also represented. The foreign literature is, however, considered in the reviews as well as that published in the English language. Such names as Professors Ewald, Mayo, Robson and Boardmen Reed are to be found on the list of editors, and guarantee the quality of the reviews and the critical opinions upon the work of the year.

The arrangement of subjects is alphabetical, with cross references where needed. The references to the literature are given at the close of each paragraph. The brevity of the paragraphs is necessarily great where so much has to be considered in so short a space. The stereograms, which are used freely, especially to bring out points on the eye and the various accessory nasal sinuses, are as a rule excellent and add greatly to the value of the work. They are printed on rather better paper than the rest of the book. The book is divided into three parts. Therapeutics, new treatment and a miscellaneous section. A list of new medical books published during 1904 is given, but these are chiefly American and too incomplete to be of much value. An index at the close renders the subject matter easy of access in looking up recent views on any particular subject, but the work can be read continuously like any text-book should the reader desire to keep in touch with advances in all fields.

AMERICAN ALKALOMETRY. Vol IV. A Digest of Clinic Teachings, 1902 and 1903. Edited by W. C. Abbott, M. D., and W. F. Waugh, M. D. Cloth, \$2.00 net. Pages 735. The Clinic Publishing Co. 1905.

The latest addition to the alkaloidal series is made up chiefly of the literature which has appeared in the alkaloidal clinic during the years 1902 and 1903. The editors of the volume have added their views freely at the end of many of the articles. A wide range of subjects in practice and therapeutics are considered, the clinical side being of course foremost. The arrangement of articles is simple as they have followed alphabetically the titles. The index at the close includes the names of the writers as well as the subjects, and so gives an additional means of finding what is wanted. The book is neatly gotten up and the type and paper are good.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Treatment of Leukemia with the Roentgen Ray.—Some interesting work has been done by E. Meyer and O. Eisenreich in the treatment of leukemia by the X-ray. They report in detail two cases. In both marked improvement occurred under the X-ray. In the first patient, that of a machinist, age 31, treatment was started in May, 1904. The blood then showed, hemoglobin 72 per cent. red cells 3,160,000, white 142,000. In two weeks under 8 to 10 minutes' exposure of the ray, his general condition had distinctly improved. The leucocytes gradually decreased from 142,000 in May to 6,000 in September. After that, in spite of treatment, they gradually increased until in December, when they were 22,000. The red cells and the hemoglobin practically became normal. He still maintained his improved condition; the spleen got back to normal size. The other patient was a woman, age 24. In March, 1904, she came under observation. Her condition was more serious. Hemoglobin 40.5 per cent., leucocytes 410,000, red 2,860,000. She was under treatment until November, 1904, when the leucocytes were 149,000. Since treatment was stopped the leucocytes gradually increased. Still the general condition remained improved. Heineke has lately shown that X-ray treatment causes improvement by structural changes in the organs, perhaps also by phagocytosis.

Wendel, in the same journal, gives a statistical paper in which he has collected 38 cases of leucæmia from literature that have been treated by the Roentgen ray, and he adds another of his own. The leucocytes in his patient fell from 56,000 to 16,000. He finds from analysis of these cases that 90 per cent. were improved, but it was practically in the chronic and subacute types only that these results were obtained. The myeloid forms offer the best prognosis. The literature dates back to 1903 when the first patients were treated by Senn.

In the symposium, another paper offered by Schieffer, adds five more to the list, and he claims cures in three of them, improvement in one and the other stopped treatment. Schieffer believes that the ray offers the best treatment we have at present for the disease. It should be started early. He exposes the spleen only to the light, while the others expose larger surfaces. (*Muenchener Medizinische Wochenschrift*, Jan. 24, 1905.)

Intravenous Injections of Salicylate of Sodium and Its Diagnostic Value.—Mendel uses a solution of sodium salicylate 8.75, caffeine 1.25, distilled water 50. He uses of this 2 cc. at intervals of twelve hours to three days as an intravenous injection usually given in the arm. In severe cases he uses 4 cc. He claims for this method rapid relief from pain and removal of fluid from the joints, results which he has got in no other way. He is apparently a believer in intravenous treatment, as he has used the method in upward of 8,000 patients for all sorts of diseases, and has never had any untoward results. The above formula has been used by him in two thousand rheumatics without any bad results. He finds this formula of value in puzzling joint affections in differentiating the rheumatic from the others. (*Muench. Med. Wochens.*, Jan. 24, 1904.)

Prevention of Apoplexy.—Allbutt says that "strokes" are of several kinds, but he confines himself in this paper to the cases where the disease is of long standing and can be found in the arteries about the seat of the hemorrhage. Post-mortem, these show no effusion of blood, but the circulation of the brain has been arrested by a slitting up of the arteries rather than by rupture of them. The heart here does not show hypertrophy, but rather an atrophy. The arteries present calcification of the middle coat. The kidneys are not granular. In another class of cases the brain is healthy, the heart hypertrophied, the arteries spoiled. The trouble then lies in the mechanism of the circulation, and that chiefly in the arteries. These cases may present high arterial pressure due to contraction of the arteries, or they may have no rise of pressure at all. In the cases without rising pressures arterial spasm is present.

He says then that the prevention of apoplexy will be found in the preventing of the special tendency to a persistent mean rise. Arteriosclerosis is not the cause but the consequence of rising arterial pressure. The man of over forty should have his blood pressure measured every five years until sixty, and if there is no great increase in the pressure until then, the danger of apoplexy can be disregarded. If the pressure is found increasing, his mode of life must be revised. If a slight attack has occurred there is even more reason for changing the mode of living. (T. C. ALLBUTT, *Bristol Medico-Chirurgical Journal*, Mar., 1905.)

DISEASES OF THE NERVOUS SYSTEM.

Under the Charge of

GUY L. CONNOR.

The Special Field of Neurological Surgery.

I wish to point out some of the present possibilities of affording surgical relief in certain maladies for which the outlook is otherwise forlorn, and to lay stress on certain points that give us hope for the future. I shall keep away from the beaten paths; for that a cerebral abscess should be evacuated, a ruptured meningeal vessel tied, the spinal cord relieved from pressure and a severed nerve sutured, has long needed no comment.

BRAIN AND MENINGES.

After extirpation of tumors of the brain and meninges, perfect functional restoration has taken place in many cases, for we know that a considerable percentage of these growths originate in the meninges, and being by nature non-infiltrating, damage the cerebrum by a compressive invasion alone.

Palliative operations, both for the supposedly inaccessible growths as well as for those which in the light of our present knowledge still remain non-localizable, should be done early. These palliative operations are done especially for the preservation of vision, particularly in those cases in which the intellectual faculties are in no way disturbed.

Extradural forms of circumscribed effusions which are usually due to laceration of a branch of the meningeal artery have long been recognized as distinctly and urgently operable. Interference with other varieties of hemorrhage is less commonly advocated. Nevertheless we are coming to feel that the diffuse subdural hemorrhage associated with fracture of the base of the skull, the hemorrhage which occurs in the new-born (both of which follow the rupture of veins alone), and also the arterial hemorrhage of the adult into the brain substance, in selected cases, are as properly and advisedly attacked surgically as are the more accessible localisable and easily treated effusions of blood.

Drainage of the meningeal spaces, when they are infected, is by no means a hopeless surgical problem, although much is to be learned by experience of the ways and means to this end. In the epidemic forms of meningitis, so far, no permanent beneficial effects have been observed through surgical intervention, though the symptoms frequently abate in a great measure and life may be seemingly prolonged.

SPINAL CORD.

The primary growths are usually benign; they spring from the meninges; they are easily enu-

cleable; and if removed early, there is complete restoration of the function of the cord.

The indications for surgical intervention in cases of spinal traumatism when there is evidence of injury to the cord, have given rise to much discussion. I have divided these cases into three categories: (1) Those in which an operation is contra-indicated because it can do no good and may increase the damage already done. To this group belong the traumatic haemato myelias. These, up to a certain point, are recoverable by natural processes of repair. (2) Cases of fracture-dislocation, which are relatively common and which so far as we know are beyond all hope of restoration, owing to the complete transverse nature of the lesion. In these operation can do no harm, but it is an unjustifiable ordeal for both patient and operator. (3) Cases of partial injury to the cord with symptoms (which are increased and perpetuated by pressure) from a foreign body such as a fragment of bone or bullet, form a group in which an operation undoubtedly will do good if properly done.

PERIPHERAL NERVES.

Langley was among the first to put to experimental test the possibility of nerve crossing, through which has been opened up such a promising field for peripheral nerve operations. During the process of reunion of a divided nerve, it is hardly conceivable that each fibre will make connection with its own original fibre in the peripheral stump and thus find its way to its original end organ. If this is so, why should it not be possible to graft the peripheral end of one severed nerve, whose central connections have been destroyed, with the central end of another nerve of like nature which has not suffered injury? It has been shown that this not only is possible, but that at least for the extremities a re-education of the central activities take place (particularly in young individuals) to such a degree that practically the normal function is resumed, one group of cells sufficing to preside over its own as well as over the territory of the nerve originally injured. The possibilities of nerve anastomosis do not end here with the grouping of like upon like, for Langley has demonstrated the surprising fact that nerves, normally subserving different functions, may under favorable circumstances be interposed.—(HARVEY CUSHING, *Bulletin of the Johns Hopkins Hospital*, March, 1905).

SURGERY.

Under the Charge of

MAX BALLIN.

Progress in Diagnosis and Treatment of Perforative Peritonitis.—Death in peritonitis after perforation of intestines, appendix, etc., is in many cases due not only to the pus in the peritoneal cavity, but to paralysis of the bowels, stagnation of the fecal contents in the bowels, and the consequent toxemia. If the pus has been evacuated, and tympanitis should occur or persist, enterostomy should be performed. The author treated during the acute stage of peritonitis, eleven (11) cases with enterostomy, of which seven (7) cases recovered. As long as the intestines are still able to contract, one incision will be sufficient, but in a case where the bowels were entirely paralyzed, the author successfully incised the intestine in three places in order to remove the toxic contents. The method used is as follows: Through a small laparotomy wound (if a former operation has taken place, the same opening is used) a small trocar is introduced into the intestine under due protection of the abdominal cavity by gauze packing. The fecal matter is removed through a rubber tube attached to the trocar, the outflow being facilitated by irrigation. Enterostomy is best performed early, before the intestine muscles are entirely paralyzed. (DR. BARTH, *Danzig, Deutsche Medizinische Wochenschrift*, No. 10, 1905.)

A Plea for Radical Surgical Treatment of Chronic Gastric Ulcer.—Gastric ulcer should be treated surgically:

1. If hemorrhages endanger the life of the patient.

(a) Acute profuse hemorrhage.

(b) Repeated lesser hemorrhage.

2. In case of perforation of the ulcer, operation is imperative.

3. If there is a stricture of the pylorus, an operation is also clearly indicated.

4. In case of adhesions between gastric ulcer and abdominal wall or other organs adjacent, indication for operation depends upon the symptoms caused by the adhesions.

5. Gastric ulcers resisting internal treatment should be operated upon.

The ideal operation is the radical excision of the ulcer; gastro-enterostomy and pyloroplasty can not be considered but as palliative operations. This same rule applies to the stricture of pylorus caused by ulcer. Radical excision is the only sure way for complete relief. (A. KROGNIS, *Archiv. fuer Klinische Chirurgie*, Vol. 75, part 5, 1905.)

A Case of Cervical Rib with Symptoms Resembling Subclavian Aneurism.—Cervical ribs do not develop until the patient is well into adult life. In 29 cases, the average age at which symptoms were caused by cervical rib was 27 years. Why the cervical rib should increase at this period of life is not known. The rib not only increases in length, but also in diameter, as the distance from the spine increases. As the cervical rib develops, beneath and behind the brachial plexus, and carries the nerve and the subclavian artery forward, it presses the nerves against the lower portion of scalenus anticus muscle. The vein being anterior and external to the muscle is never compressed. Hence the symptoms of cervical rib are: (a) Pressure on the nerve-trunks of the brachial plexus (paraesthesia followed later on by anesthesia, neuralgic pains, paralysis.) (b) Pressure on the subclavian artery, (brachial ischaemia, aneurism, thrombosis, gangrene.) (c) Tumor formation in the supraclavicular triangle. The cervical rib exists on both sides in 67 per cent., or on one side in 33 per cent. of the cases in which they are found.

The author reports a typical case, in a man of 38 years of age, who suffered from tingling in the left hand, severe pain in the radial side of the hand, coldness and paleness of the left forearm, weakening of the muscular power in the left arm. A pulsating prominence was seen and felt over the inner and middle third of the left clavicle.

Excision of the cervical rib gave a complete cure. (JOHN B. MURPHY, M. D., *Annals of Surgery*, March, 1905.)

Typhoid Perforation.—Morris Manges, New York City (*Journal A. M. A.*, March, 1905), reports nineteen cases of perforation in typhoid, with sixteen operations and five recoveries. He considers that the most important facts in the diagnosis are the marked change in the patient's condition with the abdominal pain, which is very variable, and that the other abdominal conditions, distension, rigidity, tenderness, liver dullness, etc., with the anxious facies and sweating, are valuable aids in the diagnosis. Changes in the rate and character of the pulse are of more value than temperature or respiration. Manges believes in the occasional spontaneous cure of this condition, and refers to one case in his series in which this apparently occurred, and to another, in which, at the autopsy, a small perforation was found well sealed by omentum. The rule to operate, however, is not vitiated by these rare occurrences, and operation itself does not add to the dangers and may be effective in preventing a perforation where one is not found.

GYNECOLOGY AND OBSTETRICS.

Under Charge of

B. R. SCHENCK.

The Diagnosis of Pregnancy in the Early Months.—An excellent discussion of this important subject is given in a recent article by Skutsch. Although the diagnosis is often difficult, the errors usually result from either omitting or carelessly making the examination.

The differential diagnosis from pregnancy must be made in a very large proportion of all cases which the practitioner sees, and it cannot be too frequently or too strongly emphasized that one must, in every case, no matter what are the circumstances, bear in mind the possibility of pregnancy. As an example of this necessity, the writer cites the case of a patient who consulted him four weeks after the last menstruation, for sterility and dysmenorrhoea. On making a careful bimanual examination, there was a suspicion of pregnancy and the passage of a sound being omitted, the patient was confined nine months later.

Of subjective symptoms (of more value in the case of a multipara than of a primipara) vomiting is of importance only when the patient is in perfect health; chloasma comes in other conditions; pigmentation of the linea alba is important, only when above the umbilicus; swelling of the breasts occurs in other conditions; the palpation of the acini of the glands and the secondary areolae are important; cessation of menstruation occurs in many conditions and irregular flowing may occur throughout pregnancy.

Purplish discoloration of the introitus and the vagina is a trustworthy sign, particularly in nulliparae, and when it increases from below upward. The reddish striations around the urethra, which disappear when the uterus is emptied or the foetus is dead, form a valuable sign.

Pulsation of the uterine vessels and thickening of the ureters should be felt for. Enlargement of the uterus, in correspondence with the computed time and softening of the fundus and cervix, together with Hegar's sign (ability to compress the lower uterine segment over the internal os cervicis) are valuable points in evidence of pregnancy. The changes in the consistency of the fundus, from time to time (Braxton Hick's sign), are particularly helpful, as are also the variations in consistency of different portions of the uterine wall at the same time.

Asymmetry, varying according to the position of the ovum, is often present, the uterine muscle at the site of the insertion being softer, more

elastic and slightly tender to the touch. When there is asymmetry, Hegar's sign is often absent.

The heart sounds can be heard in some cases as early as the thirteenth, and in most cases by the sixteenth week.—(*Muenchener Med. Woch.*, Jan. 31, 1905).

Primary Tuberculosis of the Breast.—Spencer states that primary tuberculosis of the breast is a rare affection, there being, according to Gautier, only about one hundred instances in the literature, of which but sixty-five were absolutely proven by histologic examination or by finding the tubercle bacilli. Of these, only twelve were definitely proven as primary. Halstead and LeCount believe that the infection is most frequently a retrogressive one, through the lymphatics from the axilla or thoracic cavity. There are only a few cases on record in which the diagnosis was made before operation.

As the conservative treatment has not been attended with good results. Spencer recommends that the breast, together with the skin, the glands, fat and fascia from the axilla should all be removed in one piece.

Spencer's case occurred in a single woman, aged 22, in whose family history there was no suspicion of tuberculosis. With the exception of measles and pertussis, the patient had always been well, until a year before consulting the writer, at which time she was operated upon for enlarged glands of the right axilla. The patient asserted that at the time of this operation there was a tumor in the outer side of the breast, which had been present before the glands began to enlarge.

The girl was well nourished and careful general examination was negative. In the upper and outer quadrant of the right breast was a distinct mass, about three fingers in width and four in length. On pressure, purulent fluid escaped from some sinuses in the axilla. There was neither pain nor tenderness.

The breast was circumscribed by two curvilinear incisions with the apex prolonged outward and terminated just above the anterior axillary fold. The entire breast and contents of the breast were removed. Microscopic examination of the tissue, stained by the Nielson-Gabbet method, revealed tubercle bacilli. The lymph glands were found to be involved.—(*American Medicine*, March 18, 1905).

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

Pulmonary Tuberculosis.—From what I have said you may draw two inferences: The first is that tuberculosis is not invariably and inevitably a disease which progresses to a fatal termination. The lesson of the climate cure and the discovery of cicatrized and healed cavities in the dead room demonstrate that the dread white plague may be cured. The second inference relates to the climate cure. What is its essential attribute? Doubtless, fresh air. Well, the poorest patient may have this at his command. Well protected against chill and weather he may walk, he may sit, or lie in the open air all day and all night. In order to combat the emaciation, the patient should be fed as liberally as possible with nutritious food. Meats, eggs, milk, cream, Kumyss, and as much fat as can be tolerated fulfil the indications, and the dishes ought to be prefaced with sufficient variety to prevent repugnance. Houses, and especially living rooms, should be ventilated as effectually as possible. Whatever medicinal substances are employed should be those which promote nutrition. Cod-liver oil is an old and approved remedy. It improves the appetite and digestion, increases the number of red blood corpuscles and exerts a beneficial influence upon the central nervous system. Its taste and smell are extremely nauseating to many individuals, but this disadvantage can be overcome by some special mode of preparation. A dose may be enclosed in a capsule or the oil may be made into an emulsion and flavored with some palatable ingredient. An egg and a portion of Jamaica rum disguise the taste of the oil. A mixture of the oil and extract of malt can usually be taken without difficulty. The compound syrup of the hypophosphates or the syrup of calcium lactophosphate answer a useful purpose. The glycerophosphates are likewise of benefit on account of their reconstructive properties. Creosote made from beechwood is the most satisfactory single remedial agent which we have for the treatment of phthisis. It possesses a number of valuable properties. It is antiseptic, antifermentative, and allays the gastro-intestinal catarrh so common in tuberculous patients. It

improves the appetite and digestive power. It is eliminated by the bronchial mucous membrane. In escaping by way of the respiratory passages it lessens the sputum and restrains the activity of the bacilli. It does not destroy the organisms, but modifies the soil so that the bacilli can no longer thrive. If given too long or in too large doses or to peculiarly susceptible individuals, creosote is capable of injuring the kidneys. When the patient has exacerbations of fever every afternoon or evening he should be put to bed and given a moderate dose of wine and whiskey. It is also well to have his system under the influence of quinine. Night sweats may be counteracted by rubbing with vinegar and water or alcohol and water. If this does not suffice, atrophine in the dose of 1/80 to 1/60 grain has a good effect. Some prefer agaricin in the dose of 1/12 to 1 grain. Of late years camphor acid has gained an excellent reputation. There is a host of remedies which have been administered in this disease, but I wish to insist to-day upon the importance of a few great cardinal points: The value of fresh air, of hygienic life, and the use of creosote as a remedy.—(SHOEMAKER, *Med. Bulletin*, February, 1905).

Mesotan in Rheumatism.—Mesotan is the methyl-oxy-methyl ester of salicylic acid. It is a clear, yellowish, oily liquid, with a pronounced ethereal but not unpleasant odor. It is formed by the action of formaldehyde, methyl alcohol, and hydrochloric acid or sodium salicylate, and contains approximately 71 per cent. of salicylic acid. It is sparingly soluble in water, but more freely in oils. Mesotan depends for its action on the absorption of the drug through the skin. It has been shown that even though it exerts a general effect, it has a still more marked local action. To produce its analgesic effect on a painful joint or muscle it is sufficient to apply the medicament to the overlying skin and cover it lightly with linen or muslin as a protective. Oiled paper or muslin is unnecessary, and nothing is gained by rubbing it on. Reports of successful use in many cases are appended.—(KIEFER, *Therap. Gazette*, March 5, 1905).

BACTERIOLOGY AND PATHOLOGY.

Under the Charge of

H. S. OLNEY.

The Smallpox Question.—In the *Journal of Medical Research* for February, 1904, Councilman, Magrath and Brinkerhoff published their work on the pathological anatomy and histology of variola. They described the parasite of variola, which they regarded as a protozoa, and adopted the name given to similar structure by Guarneri, in 1892, "cytocytes variolae." They claimed that cytocytes variolae are the cause of variola; that they are always associated with the lesions of this disease; that they develop as the lesions develop; and that they are found under no other circumstances.

Their assertions met severe criticism from men who claimed that the so called parasites were nothing more than degeneration products or due to technique in fixing or staining, and that similar bodies have been found in other conditions. Since then there have been a number of articles published more or less confirming Councilman's work but all open to the same objections as to fixatives, etc.

Ewing (*Journal of Medical Research*, February, 1905) has somewhat simplified matters by using "Klatsch" preparations. That is, he uses a perfectly clean cover glass which he presses lightly over a vaccine vesicle, preferably of the cornea, and in this way causes isolated epithelial cells to adhere to the cover slip. These dry almost instantaneously, thus preventing fixation artefacts, and they can be stained easily and quickly. He describes bodies similar to those found by Councilman, but does not exactly agree with him as to their being protozoan. However, he thinks they certainly are specific for vaccinia and variola.

The Cancer Question.—The etiology of cancer is apparently as far from a satisfactory solution as ever. Every year or so "cancer bodies" have been described and vigorously upheld as the cause of this disease.

Cell inclusions have been described by Plimmer, Gaylord, Feinberg, von Leyden and many others, and there cannot be any doubt as to their occurrence; but that they bear any relation to the cause of cancer finds little or no support in fact. Greenough (*Journal of Medical Research*, January, '05) in the third report of the Cancer Investigating Committee of Harvard University, states his conclusions as follows:

1. The typical cell inclusions of cancer are practically constant in cancer of glandular origin.

2. They are not found in epithelioma and are almost invariably absent in sarcoma.

3. Their size, structure, and staining reactions are such as to justify the assumption that they are vacuoles in the cell protoplasm containing a material which is coagulated and shrunken by the use of tissue fixatives.

4. The occurrence of vacuoles of this nature is chiefly a phenomenon of cell secretion.

5. Similar vacuoles may be produced, however, in certain cases by phagocytosis and by degenerations of the nucleus.

6. Secretion vacuoles of the form of typical cancer cell inclusions are found in certain *non cancerous* diseases of the mammary gland.

7. In such cases the secretion vacuole occupies a position between the nucleus and the lumen of the gland.

8. The inclusions of adenocarcinoma occupy a similar position between the nucleus and the lumen of the gland.

9. In more advanced carcinoma the gland lumen is lost. The secretion vacuole cannot escape, and remains within the cancer cell to undergo further increase and ultimate degeneration.

10. Cell secretion is a function which is lost in the progressive anaplasia of cancer cells.

11. Cell inclusions are more frequent in slow growing cancer, and less numerous in advanced cancer with rapid cell division.

12. No reason exists for the interpretation of these appearances as of parasitic origin.

The Action of the X-Ray.—Morton's article in the *Journal American Medical Association*, April 1, 1905, is along the same lines as his previously published ones. He thinks the effects of the X-rays are mainly due to the fluorescence which is excited thereby in the animal tissues. Fluorescence is the property which certain substances have of absorbing invisible or visible rays and giving out visible light. He quotes a number of authorities to show that normal tissues possess the property of fluorescence to a greater or less degree. Morton increases this fluorescence artificially by administering to his patients some of the known fluorescent bodies such as quinin, esculin, eosin, fluorescin, etc. By the use of the X-ray or radium, he claims his results are far superior to those obtained by the X-ray alone, and in many cases this combination cures, where the X-ray alone is entirely inadequate. He regards the fluorescent fluids as the curative agent, and the X-ray or radium merely as the excitant of the fluorescence.

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THE COMPARATIVE VALUE OF SOME OF THE NEWER METHODS OF THE TREATMENT OF SKIN DISEASES.*

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In comparing new methods of treatment along any line of diseases, especially when the position of the true field of such treatment is still somewhat indefinite, a consideration of such newer methods of treatment and discussion should be productive of advancement.

My purpose is to direct your attention to a practical clinical comparison of the various light treatments in the field of dermatology. It would, of course, be impossible to cover the entire field, therefore, I will consider only those forms of light and their special therapeutic application most commonly and successfully used, viz., Roentgen Rays or Radiotherapy; Finsen Light or Phototherapy; Radium and High Frequency.

That radiotherapy and phototherapy each has its distinct field in dermatological affections is becoming more clearly demonstrated every day; and that radium and high frequency each assists in the aforementioned methods of treatment in bring-

ing about best results in chronic dermatoses is now an established fact.

That these new methods accomplish results in the treatment of some chronic conditions, which all other treatments heretofore have failed to accomplish according to reports from dermatologists in different countries is most gratifying and convincing.

Before the true value of any therapeutic application can be correctly estimated it is all important that a correct diagnosis of the disease be made. This has been one great cloud on our horizon. Men who have had no special dermatological training often make incorrect diagnoses, and because of apparent financial returns use this line of treatment, thus their statistics are questioned and justly so by the dermatologists.

The questions that confront us, usually, in applying these newer treatments are: Will it cure? Will the cure be permanent? Will it be disfiguring? The light treatment is not a panacea for all skin affections, but the case that is not per-

*Read before the Detroit Academy of Medicine, March 21, 1905.

manently benefited is a rare one, in selected cases, and the remaining scar is the least disfiguring of any known treatment.

The stimulating effect of the sun's rays was known and applied by the ancient Romans in the early days; and to-day the acknowledged therapeutic value of light is embodied in its power of stimulating all organic life; and it is deplorable that the profession at large have been so slow in applying this powerful, stimulating agent. Instinctively, the ailing, dumb beast seeks the sun, yet how few of our otherwise well equipped hospitals are provided with comfortable, spacious sun parlors, where patients might receive the benefits of this natural, health giving remedy, the value of which to the convalescent we all recognize.

If we could send our cases of acne, psoriasis, eczema, and many other kindred skin diseases to climates in which they would get the direct rays of the sun the greater part of the year, a large percentage of them would recover with no other treatment, and there would be less tendency to recurrence than with any form of medicated treatment. This is the effect of the concentrated light treatment.

Finsen was the first investigator to exclude the painful damaging rays of the sun spectrum from those that were beneficial in their effect, and that the powerful effect of all light treatment is due to the stimulative action of the chemical rays whether sunlight, or electric, and to him all honor is due.

There still exists differences of opinions as to the action of the chemical or actinic rays upon cell structure. Some contend that the action upon pathological tissue is a destructive one, while others think that a mild inflammatory reaction by the light

will produce a normal process of repair. This, I think is the same as applying heat or cold to an inflamed mucous membrane of the eye, for instance; the effect of either is the same in the end, but one acts more rapidly than the other.

I believe both opinions as to action to be correct, and results would be obtained if the proper selection of diseases to be treated were made for there are those that will respond to mild reactions, while to apply them to other conditions would be a waste of time to both patient and operator, where pathological tissues must be destroyed.

In this inflammation whether mild or severe, the Finsen light especially, produces a sterilization of the tissues, which is not true of the X-ray. The X-ray and the Finsen light are both local, and general diffusible stimulants of the highest class. This stimulation carried to a therapeutic dose, produces a radiant cell energy, which, in character resembles a normal inflammation which is a normal process of repair, and if carried a step farther will cause destruction of the pathological cell, which is the cell of the least resistance. With the histo-pathology briefly stated, for the action of all light upon cell tissue is only a degree of stimulation, let us consider then the penetrating power of the X-ray for instance, as compared with local applications.

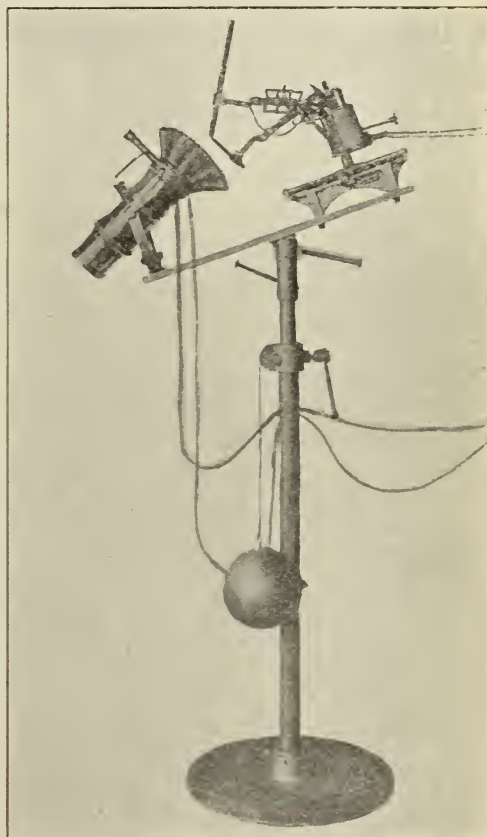
In treating any skin affection with the ray we are stimulating every cell structure of the part treated, from the periosteum of the bone, outwards, instead of trying to feed the weak, new cells about the edges of an indurated ulcer, for instance that are many of them unable to live, not to speak of their inability to take up stimulation from local medication. As soon as light stimulation is applied to

such conditions, lessening of odor and discharge is at once noticeable. This retards the death of new cells, and the stronger cells reproduce from the diffusible stimulation from within, consequently, healing takes place rapidly. We must therefore admit, after taking out the chaff from statistics of the enthusiast, that the ray is of great therapeutic importance. It is to this cell stimulation of all of the tissues under the light treatment that all superficial ulcers, lupus, epithelioma, acne, and other like chronic skin affections are happily compelled to give way.

If this stimulation from the light is continued and the vitality of the normal cells has not the power to transmit this stimulation, one to the other, an accumulative effect is produced, so that the safety limit may be easily overstepped, with destruction of new areas of healing, or necrosis of the normal tissue; therefore, great precaution must be taken with patients, whose general cell resistance is below normal, such as the alcoholic, the paralytic and the aged.

So carefully and scientifically were all of the investigations by Finsen with the light treatment made, that when he announced to the world his methods and results, neither then nor since was there anything to surpass them. Many investigators have produced smaller and cheaper apparatuses; even Finsen himself felt that the original apparatus was too expensive and cumbersome for any other work than that of an institution, and he with his assistant, Dr. Rhyn, modified the original apparatus, so as to make it practical for general use. (See in plate.) The Finsen-Rhyn lamp has power of penetration and focus equal to that of the original, with larger lenses, making it more valuable, in that a larger area may be treated

at one time. Operators of so-called modified Finsen apparatuses have been sadly disappointed in the results obtained. In my opinion they have lacked in many absolutely essential requisites for permanent results. In many of the mild dermatoses the modifications are no doubt of use, but the inability to draw a proper amount of current and improper lenses for



The Finsen Rhyn Apparatus (Finsen's last lamp).

focusing the light, and faulty compression of the part treated, results in a superficial re-action taking place before a penetrating re-action can be brought about, which is most essential. Finsen's treatment can not be conducted cheaply; the apparatus is expensive, it is expensive to maintain because it draws a large amount of current from fifteen minutes to an hour

per treatment. It demands constant attention of the operator for proper compression of the part treated, and the area treated at one time is limited, yet it is without doubt from the statistics of Finsen, Sequeira and others, the best treatment for erythematus lupus, chronic localized eczemas, and port wine mark upon which the Roentgen ray, in my experience, has little effect. It is also effectual and safe for rodent ulcer and epithelioma about the eye, when the most perfect healing is desired. The points of excellence of the Finsen are, the dosage can be more accurately measured; it is not dangerous to patient or operator. It can be combined with the X-ray or high-frequency treatment to very great advantage.

If the Finsen light were confined therapeutically to lupus, the disease that first brought it into prominence, one apparatus in every hospital or sanatorium of each of the large cities, would be sufficient to treat all of the lupus in this country, as it is not a common disease. Out of the 200,000 cases of skin diseases according to the American Dermatological Society statistics, covering fifteen years, only 1,700 were both varieties of lupus. Fortunately, however, investigation has proven the usefulness of this treatment in other fields. Up to the present time, according to reports, radiotherapy is effectual in a larger variety of chronic skin diseases, but failures are more common. The Finsen light is accredited with the greater number of actual cures as compared to the X-ray. This is no doubt due to the careful selection of the diseases to be treated by it, and the untiring scientific application made by Finsen and his early followers.

In comparing the Finsen light with the Roentgen ray, my experience has been

that the Roentgen ray is chosen for a large percentage of the dermatological conditions that require light treatment. The reasons of this are, first, because stimulation by the X-ray is more rapid; second, there is more penetration, therefore it influences the deeper structures; third, it covers larger areas of disease; fourth, it is better adapted to the treatment of ulcerative conditions and diseases of mucous membrane; fifth, the application is more comfortable to the patient; sixth, treatment can be carried on less expensively, and last, the apparatus used to excite the ray can be put to other uses. Yet, on the other hand, the agent which is the most powerful in producing good results, is also the most powerful in producing evil ones if not under proper control. The more experience one has with the ray, the more profound is his respect for its powerful action.

Besides the action of the Roentgen ray upon ulcerative and cutaneous granulomata and cutaneous affections involving the mucous membrane, it has a gratifying curative effect upon a class of diseases that have been most obstinate and rebellious to other forms of treatment. These conditions are those that attack the hair and its follicles, both parasitic and non-parasitic. In ring-worm and sycosis, sufficient application of the ray to cause prompt falling of the hair will result in a large percentage of the fungi being carried away on the hair shafts after which the diseased area may be painted with mild antiseptics, which now have ready access to the remaining fungi and the disease is cured in one-third the time of other successful management. This new form of treatment is being extensively used in European countries because of its prompt, curative action, when heretofore the treatment

has been tedious and slow. In sycosis the treatment has been equally gratifying. There are many other less common, rebellious cutaneous diseases that are amenable to the ray, that are unaffected by the Finsen light, such as mycosis fungoides, blastomycosis, scleraderma, elephantiasis and others. From the knowledge of the action of radiotherapy and phototherapy, investigators were led to apply forms of radio-activity that were known to exist in certain mineral salts, the most active of which is radium. The spontaneous emanating energy of this salt has a decided action upon living tissue, due to the actinic rays emanating from it, and resembling in action the Cathode ray. It is more rapidly transmitted than the X-ray, and its radio-activity is measured in units, using uranium as a base as the unit of measure. The therapeutic possibilities of radium are decidedly limited, and there is no question that it has been over-estimated. We have never been able to obtain the same results in this country that have been reported by the French, and its use is being gradually discarded by dermatologists. The objections to it are the small amount that can be obtained, uncertain dosage, limitations in area of application, and its enormous price, and while the indications for its application are along the same line as the X-ray, my experience has been that radiotherapy covers more perfectly any therapeutic indication of radium, with possibly one exception, the diseased condition being in a cavity.

Another form of light treatment which is as yet in its infancy is high frequency. This current is an entirely new electrical phenomenon and has been attracting the attention of dermatologists because of its undoubted assistance to the Roentgen ray and Finsen treatment. The apparatus is

so constructed as to produce the most highly interrupted current known, and one that is unpolarized. The two component parts of therapeutic value in this current are its visible spark of high frequency, and when applied through a vacuum electrode gives off actinic rays. It has a pronounced action upon the superficial sensory nerves, when applied locally, thus relieving itching and pain, and it also has a marked effect of producing an increased blood supply to the skin, thus promoting cell metabolism. Its field of usefulness is therefore in the localized, pruriginous affections. Its most specific field of action according to my experience has been in the destruction of small neoplasms, such as warts, moles, and small nevi; especially of warts of the scalp. The application is practically painless, compared with the electric needle. With a carbon point electrode, an application of from three to ten minutes will cause a wart or mole to turn black and it will in a day, fall off, with no pitting or trace of the location of the neoplasm. This new method of treatment is a great advancement over the electric needle, for it is far less painful and leaves no scar, and further, it is very useful in combination with the Roentgen ray and Finsen light. It has no doubt a field of usefulness in cutaneous affections, which is constantly gaining, but as yet its results cannot be compared to those of the Roentgen ray or Finsen light.

Let us now consider the older methods used in treating these diseases before the light treatment was known, namely, excision, curetting, scraping, cautery and caustics; in my judgment, there is no comparison between these and the newer methods which have been briefly outlined. I do not wish to infer that these older methods should be or can be wholly dis-

carded, for they are of constant assistance to the light treatment in bringing about a more prompt removal of pathological conditions on portions of the body, where the scarring is of little importance to the patient. The disadvantages of the older methods are that they are painful; the remaining scars make them objectionable on exposed parts of the body, such as the hands and face; they are unable to reach all of the diseased tissue, and they expose new areas to infection.

CONCLUSIONS.

The Finsen light is not only the safest of these methods in its application to the

patient and operator, but it is credited with the greatest number of actual cures. The original apparatus is superior to all modifications of it, thus far. The Roentgen ray covers the largest field in the treatment of cutaneous diseases. Radium and high frequency are of special assistance to both radiotherapy and phototherapy. All four can be advantageously combined in the treatment of chronic, cutaneous diseases, specially selected.

These general comparisons are based upon the personal application of the light treatment in 490 cases.

A CASE OF MALFORMATION OF THE INTERNAL GENITALS WITH THE REPRODUCTIVE GLANDS IN THE LABIA MAJORA.*

C. L. PATTON,
Ann Arbor.

Congenital deformities of the internal genitalia, while not uncommon, are sufficiently rare to make each case interesting both to the specialist and to the general practitioner. By far the greatest number of gross deformities of these organs may be classified under some division of hermaphroditism, or pseudo-hermaphroditism, but there are cases in which the external genitalia are so perfectly formed and in which the internal organs vary so markedly from the normal that one is unable to determine the sex of the individual without microscopic examination of the reproductive gland.

Through the kindness of Doctor Reuben Peterson, I am enabled to report the following case, which entered the gynecologic service of the hospital of the University of Michigan:

Patient is 15 years of age and enters the hospital for pain in the lower abdomen and inguinal region and for a failure of the menses to appear. The father is living and is in good health, but the mother has had fainting spells with the menstrual flow since puberty. One sister died of tuberculosis, but the remaining brothers and sisters are in good health. None of the sisters gives a history of abnormal menstruation and one sister has had two children.

The patient was well until she was 13 years old, when she began to have headache and pain low down in the abdomen.

*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society, at Grand Rapids, May 25, 1904, and approved for publication by the Committee on Publication of the Council.

She has had scarlet fever and measles, but made good recovery from each.

Menstruation has never appeared. She had a slight discharge in January, 1904, white and thick, which she thought was leucorrhoea. The appetite is not good, digestion is poor, bowels are constipated and bladder negative.

In January, 1903, the patient began to have pain in the lower abdomen and a little to the right of the median line. This pain came on at irregular intervals. It was cramping in character and located in the region of the umbilicus, lasting one and one-half to two days. The pain each month was of the same severity until December, 1903, and occurred about the twentieth of each month. She was not confined to bed during these attacks but complained of dull headache and tired feeling. Since December, 1903, the pain has been almost constant with intervals, sometimes, of two or three days. It extends farther down in the pelvis and to the right of the median line. In the last part of January, 1904, the patient noticed a mass in the right inguinal region, hard and slightly painful on pressure. A week later she noticed a similar mass in the left side. No history of injury could be obtained. These masses would disappear for a few days at a time and then reappear. There has been no evidence of vicarious menstruation.

Physical examination shows the patient to be 5 ft. 2 in. in height and weight 90 pounds. She has lost 14 pounds in the last six months. She does not look well. There is a slight flush about the cheeks, the mucous membranes are pale, and the cheeks are slightly sunken. The sclera is clear and shows a bluish tinge. The hair is brown, of fine texture and long. The face is distinctly feminine. The frame is

small and the skin moist, elastic and sallow. Panniculus is thin, musculature small but firm. The dental arch is high and the teeth poorly kept though regularly set in upper and lower jaws. The skull is square and the brow protrudes. There is a slight asymmetry in the development of the ears. Mental development is good. The voice is feminine.

Chest—This is narrow and long, but not deep. The clavicles and ribs are prominent. The epigastric angle is narrow. The breasts are well developed, the areola distinct and nipples elevated. Percussion and auscultation show suspicious signs of tuberculosis, although the sputum examination is negative. The heart is negative.

Abdomen—Above the level of the ribs, and the umbilicus protrudes slightly. The veins are enlarged in each iliac region. There is tympany all over the abdomen except in the lower left quadrant, where it is somewhat dull. There is tenderness upon palpation and percussion. The abdominal muscles are rigid.

External Genitals—The pubic hair is present. The mons veneris, clitoris, meatus urinarius, labia majora and labia minora are absolutely normal for a girl who has not reached puberty. The hymen is ruptured and the finger can be passed into the vagina. Ether was given to render the examination more complete. Upon straining under the anesthetic two masses appeared, one in the upper part of each labium majus. Each is about the size of a small English walnut, soft and compressible, but distinctly outlined as one body. These bodies can be readily moved and slip under the finger like normal ovaries. Attached to the upper portion of each body is a round, soft, slippery cord, three to four millimeters in diameter.

The right external ring admits the forefinger with ease and the left ring is somewhat larger. There is no cremasteric reflex.

Rectal examination shows two tightly stretched bands from either side of the sacrum which meet behind the pubes. There is an apparent absence of the uterus. Examination with the sound in the bladder and the finger in the rectum, shows that there is no body that might be taken for a uterus. In the region of the sigmoid are irregular masses feeling decidedly like enlarged glands and adhesions. No ovaries or tubes could be made out. The vagina admits the forefinger and is 5 centimeters in length. It is lined by mucous membrane and terminates in a cul de sac. There is no suspicion of a cervix.

The morning temperature varied from 98° to 98.8° and the evening temperature from 99.2° to 100° during her stay in the hospital.

The diagnosis of tuberculosis of the lungs, tuberculous peritonitis and either pseudo-hermaphroditismus masculinus externus, or bilateral inguinal hernia of the ovaries with an aplasia of the uterus was made. An operation was advised but unfortunately was refused.

The term hermaphroditismus is applied to a class of deformities in which persist certain elements of the genital organs of both sexes. A large proportion of the congenital deformities of the genital tract are included under this term.

According to the classification given in Ziegler's Pathology, hermaphroditismus may be divided into true hermaphroditismus and false, spurious or pseudo-hermaphroditismus.

True hermaphroditismus or *hermaphroditismus verus* may be of three kinds—lateral, bilateral or unilateral.

In *lateral hermaphroditismus verus*, there is present an ovary on one side of the body and a testicle on the opposite side. It is claimed that individuals of this kind have been known and such cases have been reported by Meyer, Schmorl, Banon and others. Obolonsky has shown by careful dissections and histologic examination that he had a case of this kind.

Bilateral hermaphroditismus verus may be defined as the presence of both an ovary and a testicle on both sides of the body. It is doubtful if any such condition has ever been found. Heppner describes such a case in a premature, malformed infant whose external organs were those of a female. The internal organs consisted of a rudimentary uterus, rudimentary vagina, normal ovaries and tubes. Near each ovary was found a body containing tubules radiating toward a hilum. He supposed these to be testicles. Garré has recently reported a case which may belong to this class.

In *unilateral hermaphroditismus verus* there are a testicle and ovary on one side of the pelvis and either a testicle or an ovary on the opposite side. Blacker and Lawrence have found such a condition in a foetus.

Pseudo-hermaphroditismus is much more common than *hermaphroditismus verus*. It is the result of the persistence of some of the embryonic structures, which have failed to undergo atrophy as in the normal individual. It is characterized by bisexual development of the external genitals and genital passages, with a unisexual development of the essential sexual gland.

Pseudo-hermaphroditismus may be either masculine or feminine and of the internal, external or complete variety.

In *pseudo-hermaphroditismus masculinus internus*, the external genitals are either

well developed or deformed and are of the male type. The individual also possesses a vagina and, in some cases, a uterus or even tubes. The sexual glands are testicles.

In *pseudo-hermaphrodisismus masculinus externus*, the external genitals, only, depart from the male type and more or less completely resemble the female.

Pseudo-hermaphrodisismus masculinus completus is characterized by having a vagina, uterus, and tubes more or less complete or in a rudimentary state. The external genitals resemble the female organs. The penis is usually in a condition of marked hypospadias and the urethra and vagina open by a common orifice. Other varieties of this type are seen. The sexual gland is testicle.

In *pseudo-hermaphrodisismus femininus internus*, the external organs are female and, together with the ordinary internal organs of the female, are found rudiments of the Wolffian ducts.

Pseudo-hermaphrodisismus femininus externus has external genitals more or less resembling a male, while the sexual gland is ovary.

Pseudo-hermaphrodisismus femininus completus has external organs resembling the male, a persistence of parts of the Wolffian body, and the sexual organ is an ovary.

The case reported, provided the glands in the inguinal canals are testicles, is one of *pseudo-hermaphrodisismus masculinus externus*. The formation of the external genitals varies markedly in this class. By far the greatest number are cases of hypospadias, in which the clitoris is abnormally developed. The urethra is represented by a groove on its under surface. The clitoris may attain the size of the normal penis. Hundreds of cases of this kind

have been reported. Next in frequency are those cases in which the external genitals conform exactly to the female type but the vagina and hymen are totally absent. Much more rare are those cases in which the hymen and vagina are present and the external genitals are apparently those of a normal individual.

Mundé, in his article in the *American Journal of Obstetrics* for March, 1899, was able to collect only five cases of this last class. These were reported by Leopold, Ricco, Steglehener, Giraud and Chambers. I am able to add to this list cases by Braun, Dixon Jones, A. Martin, Poore, C. Martin, Snequirjow, Solowij, Delagénère, Buchanan, Polaillon, Harris and Demars. In all these cases the external genitals were female,—the clitoris was not enlarged, the meatus was in normal position and the hymen and vagina were present. The uterus, tubes and ovaries were absent and the glands in the inguinal canal were proved to be testicles by microscopic examination.

The case reported by Polaillon in 1885 may be taken as a type of the above cases. The patient was 25 years of age. She has never menstruated and has never had any menstrual molimina. The external genitals are well formed and are like those of a normal female. The clitoris is not enlarged and the meatus is in normal position. The vagina is 2 centimeters in length. Rectal examination with the sound in the bladder shows an entire absence of the uterus. At either external abdominal ring is an oval body, movable and incompletely reducible on the right side, while it is completely reducible on the left. These glands were supposed to be ovaries. The patient died from nephritis in 1887. At autopsy, the uterus was found to be absent and was replaced

by a thin band of muscle back of the bladder. No tubes or ovaries were present. The glands in the inguinal canal were proven to be testicles by histologic examination.

The earliest authentic cases of ovarian hernia were reported by de Gouey (1716), Pott (1756), Deault and Deneaux. Since then many articles and monographs have been written on this subject. In the *Annals de Gynécologie* for 1879, Peuch has collected 86 cases of inguinal ovarian hernia. Of these, 54 were congenital, 16 were accidental and 16 were questionable. Of the 54 congenital cases, there was deformity of the internal generative organs 33 times. In 4 cases there was a bi-horned uterus, in 13 feminine hermaphrodisismus and in 16, absence or gross defect in the development of the uterus. Double ovarian hernia was congenital in nearly every case and was associated with absence of the uterus or feminine hermaphrodisismus. The ovary was always found with the tube in congenital cases while it was found alone in cases of acquired hernia. He says, "It is rare to mistake an ovary for a testicle in the inguinal canal, because, if the external genitals are well formed the gland is probably ovary. With testicles in the canal, there is usually some deformity of the external genitals, especially the clitoris."

This conclusion differs markedly from Swasey, who says, "It is far more probable that congenital tumors of the groin are testicles than ovaries, and no case should be accepted as ovaries unless the evidence on the point sets it beyond cavil."

Congenital hernia of the ovary is analogous to the normal descent of the testicle. The round ligament is the essential agent. Normally, the Müllerian ducts fuse to form

the uterus. The canal of Nuck remains patent until the seventh or eighth month of fetal life. The ovary descends from its place of development as does the testicle, but the anlage of the round ligament of the ovary fuses with the uterus to form the ovarian ligament. This arrests the ovary in its descent and the gland is drawn toward the uterus, away from the inguinal canal. In the testicle, the anlage of the gubernaculum testes is attached to the skin, making its exit from the abdominal cavity by way of inguinal canal. The body grows more rapidly than the gubernaculum and consequently the testicle descends in the abdomen and is drawn through the inguinal canal and finally into the scrotum. If Müller's ducts fail to fuse, no uterus is developed and consequently the anlage of the round ligament has no fusion and no place of attachment other than the normal attachment of the gubernaculum testes. The ovary descends and is drawn through the internal ring before the canal of Nuck closes and a congenital hernia is produced.

I have been able to collect 9 cases of double ovarian inguinal hernia with apparent or total absence of the uterus. In each case the external genitalia were those of the normal female. The vagina and hymen were present. These cases were reported by Guerisant, Nicaise, Holmes Coute, Rheinstaedter, Boinet, Bezancon, Werth, Parker, and Cazeaux. Other cases are mentioned in literature but they either exhibited some deformity of the external genitalia or the cases referred to could not be found.

The case reported by Bezancon may be taken as a type of these cases. The patient was 38 years of age. There was a family history of tuberculosis. The pa-

tient is married but has never menstruated. Coitus is normal. She shows evidence of cachexia and advanced pulmonary tuberculosis. She died after three days of observation.

At autopsy distinct lesions of pulmonary tuberculosis were found. There was an absence of the left kidney and evidence of tuberculous peritonitis. The vulva and clitoris were normal. The meatus was in normal position for a female. The vagina was 4 centimeters long and terminated in a cul de sac. Hymen tags were present. There was a small bundle of muscle fibers back of the bladder supposed to be the remains of the uterus. There was an inguinal hernia containing some of these fibers, an ovary and a tube. Microscopic examination of the sexual gland shows Graafian follicles. There is a sclerosis of the right ovary.

The following is a case reported by Swasey in which no microscopic examination was made. The patient is 46 years of age and single. There is nothing in feature, form, or face to suggest that she is not a woman. There is no beard, the skin is soft, the complexion fair and the voice feminine. She has never menstruated and there has been no vaginal discharge. She has never had any pelvic pain. The breasts are normal and of the female type. The nipples are perfectly formed and the shoulders and chest are female. She was ruptured at 25, a double inguinal hernia being produced. Below the hernial masses are irregular bodies, one on the right and one on the left, the size of pigeon's eggs. They have the feel and consistency of five-year-old testes. There is a cord from each body to the external abdominal ring, feeling like a spermatic cord. The tumors are irre-

ducible, have never been painful and have always occupied their present position. The pelvis and thighs are of the female type. The mons veneris is not prominent but pubic hair is present. The vagina is 3 inches long and is perfectly formed. The hymen is perfect; the clitoris normal. There is no trace of a uterus. The patient is of female build. This case was seen by Paul F. Muné and T. Gaylord Thomas. Mundé considered the glands testicles, while Thomas was equally sure that they were ovaries. No operation was performed.

From the cases collected, I think that one is not justified in making a diagnosis of either ovarian hernia or hermaphroditism until the gland has been examined microscopically. I have collected 24 cases showing practically the same condition upon physical examination,—feminine habitus, feminine external genitalia and glands in the inguinal canal. Of these 24 cases, 9 proved to be ovarian hernia and 15 pseudo-hermaphroditism masculinus externus.

I think, in making our diagnosis, we must agree with Doctor Robert Barnes, who says that cases of this class of pseudo-hermaphroditism and ovarian hernia are closely related and that such individuals should be called "neuters" or "missed sexual determination."

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INJURIES TO THE PARTURIENT CANAL DUE TO CHILDBIRTH; THEIR CAUSATION, DIAGNOSIS AND TREATMENT.*

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An examination of the literature reveals an astonishing diversity of opinion touching almost every phase of repair work in the parturient canal. A variety of methods are proposed for the restoration of the perineum and each year gives additions to the list. This is conclusive proof that we have not one method that even the majority are satisfied with, when it becomes necessary to perform the secondary operation of carefully dissecting out retracted ends of lacerated muscles that have become atrophied, and properly unite the same, thereby restoring support and function. That all of such injuries could have been prevented or repaired in the early puerperium is the argument of this paper.

A better and clearer appreciation of the subject is obtained by examining the important anatomical facts as given by Marcy (1).

The parturient and fecal canals are supported in the pelvic basin in close apposition. The *pelvic floor* is so formed

and blended about these openings that it not only *supports* these canals, but also *materially aids* them in their *physiologic functions*. In intimate relation to both are the bladder and uterus in their ever-varying functional activity, and each is surrounded by a delicate plexus of nerves and vessels. The vulvar organs are all intimately blended with and go to form a part of the perineum proper. On each side of the vaginal orifice are the erector clitoridis, the bulbocavernosus and the transversus perinei muscles, and these with the levator ani, make up, in large measure, the pelvic floor. The bulbi vaginal and Bartholinian glands are covered by these muscles with their erectile plexus of vessels and abundant distribution of lymphatics and nerves.

The erector clitoridis and bulbocavernosus muscles, with the transverse perinei, join on each side to constitute the ovate muscular vaginal orifice, and in their conjoined action perform a very important physiologic function in sexual congress. Their impaired function frequently underlies certain reflexive nervous conditions, distinctly pathologic, that are the cause of much suffering and unhappiness.

The superficial perineal fascia in its deep layer covers and incloses the trans-

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(1) Henry O. Marcy, M. D., *J. A. M. A.*, October, 1903

versus perinei muscles, forming strong ligamentous transverse bands, uniting in the perineum, designated by Savage as ischio-perineal ligaments. The pubococcygei acting in unison with the other muscles of the pelvic floor, draw forward, and thus aid not only in closing the rectum, but in holding both it and the vagina in the anterior curve, so important to be retained for the preservation of normal function. The deeper fibres of the pubococcygeus unite in a loop behind the lower border of the rectum, holding it from its fixed point at the pubes, as in a sling. This loop is connected with the transversus perinei, bulbocavernosus, erector clitoridis, sphincter vaginae and sphincter ani muscles by strong layers of connective tissue, the importance of which, for union and support, can not be readily estimated.

On the posterior wall of the vagina, in its lower third, longitudinal muscular fibres are found external to the circular layer, and these intimately blend with the pubococcygeus, giving a firm support to the vaginal outlet. The physiologic action of the muscles, thus grouped, serve to draw the rectum forward toward the pubic arch, which largely explains why the circular fibres of the vagina intra-fold laterally. The intra-folding of the vagina at right angles to the vulvar outlet is very important in its relationship of support to the uterus and its appendages.

"It is to be remembered that the direction of the normal vaginal canal for a distance of from one-half to three-quarters of an inch within the line of the hymen, is upward and backward, and from this point the so-called perineal angle, almost directly backward. It is at this perineal angle that the levator and its layers of fascia lift the canal forward or upward,

and *it is at this point* also that *separation* of the muscle and of the fascia usually occurs." (2.)

Whenever pathological findings suggest unmistakably a preventive etiology our duty is made very clear. The pathologic changes in the structures forming the parturient canal are due, in about 90 per cent. of cases, to injuries received during childbirth. The injuries at the vulval outlet that are of any consequence occur, in nearly every instance, during operative deliveries, as a result of impingement upon the tissues with forceps handles, or the blades acting as a cutting agent by being held at an angle with the outer portion of the birth canal during the last act of expulsion.

The instrument should be removed or made to assume the same axis as the lower part of the birth canal, and every care must be used while exerting traction, to save the surrounding tissues.

The injuries within the vagina are most frequently found in the sulci, and they may or may not involve the overlying mucosa. The instrument blade, when held at an angle to the vagina axis, is here a frequent causative factor in the variety where the sulci mucosa is broken.

But when the submucous separation or overdistension occurs we have a condition usually resulting from a long and tedious second stage that might have been prevented by assisting the delivery with forceps. The rent at the sulcus usually extends deep enough to involve more or less of the fibres of the levator ani (which is essentially the pelvic floor) but the perineum proper may not have even the slightest laceration.

A slight median laceration of the perineum may extend from the sphincter ani

(2) James Hawley Burtenshaw, M. D., *The N. Y. Med. Jour.*, Jan. 10, 1903.

muscle to one inch up the posterior vaginal wall without involving the supporting structures of the perineum or pelvic floor. The deeper median tear involves the sphincter ani and the recto-vaginal septum (but not the supporting structures of the pelvic floor), resulting in incontinence of feces and diversion of the same into the vaginal outlet.

when existing in only a slight degree, in no way give subsequent trouble, and when the tear is extensive enough to cause considerable hemorrhage, marked eversion of the os, or a large amount of cicatricial tissue, then the question of preventative etiology is an important consideration. The application of forceps before complete dilatation has taken place, and too



PLATE 1.—Uterus just after Expulsion of Fetus.

It is well to keep in mind that every perineal tear begins on the inside, and that an outside tear without one inside is indeed rare. We have here suggested that the best procedure in repair work is to begin at the starting point of the tear.

It is an accepted fact that all cervixes in parous women show some form of single, bilateral or stellate lacerations and,

rapidly delivering, is a fruitful source of this injury.

Briefly stated, the pathology of the perineum, due to lacerations, includes rectocele, cystocele, enterocele and subinvolution of the vagina, while that of lacerations in the cervix uteri include exposed and inflamed cervical mucous membrane, subinvolution of the uterus, endometritis,

excessive scar tissue, pelvic lymphangitis and lymphadenitis (3).

The sequelæ of the foregoing pathological condition offer for serious consideration many of our most difficult gynecological problems. The inherent difficulties presenting are: (a) inability to completely restore lacerated tissues because of retracted muscle fibres and consequent

livery is usually treated with indifference. We have no parallel in the domain of surgery (to which obstetrics unquestionably belongs) of any other capital operation being done with such unpreparedness on the part of the operator, patient and assistants. Without a careful aseptic preparation, the necessary detail required in making a thorough examination of the

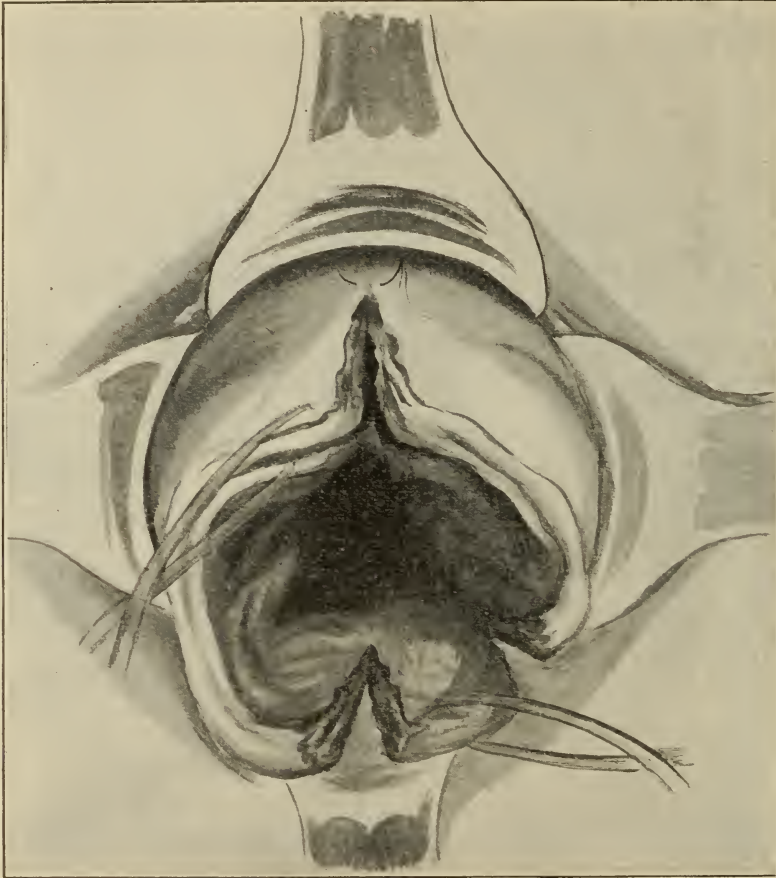


PLATE 2.

atrophic changes; (b) impossibility of correcting neurotic habit, errors and functional changes.

The successful repair of injuries of the parturient canal demands a preparation equal to that of a laparotomy. The dignity and importance of an obstetric de-

birth canal immediately, or within 48 hours after delivery, is fraught with especial danger.

It is a primary essential in practicing careful obstetrics, to insist upon a thorough examination of the cervix, anterior vaginal wall, posterior vaginal wall, pelvic floor and perineum. If this examination becomes a routine habit with the

(3) Penrose, Text Book of Diseases of Women, pp. 85, 151.

operator, greater care is at once insured in the work of delivery. When each injury is fully appreciated and the cause diligently sought for, it follows that greater care will be exercised and faulty methods will be changed by our own original work.

Before commencing an examination, a careful aseptic preparation should be

the feet can be allowed to rest upon two chairs.

The cervix is first examined; a double tenaculum forceps is introduced with the index and second finger as a guide to the anterior lip which is grasped and drawn into view, the posterior lip is now seized with a second pair of forceps and drawn fully down and conveniently to one side

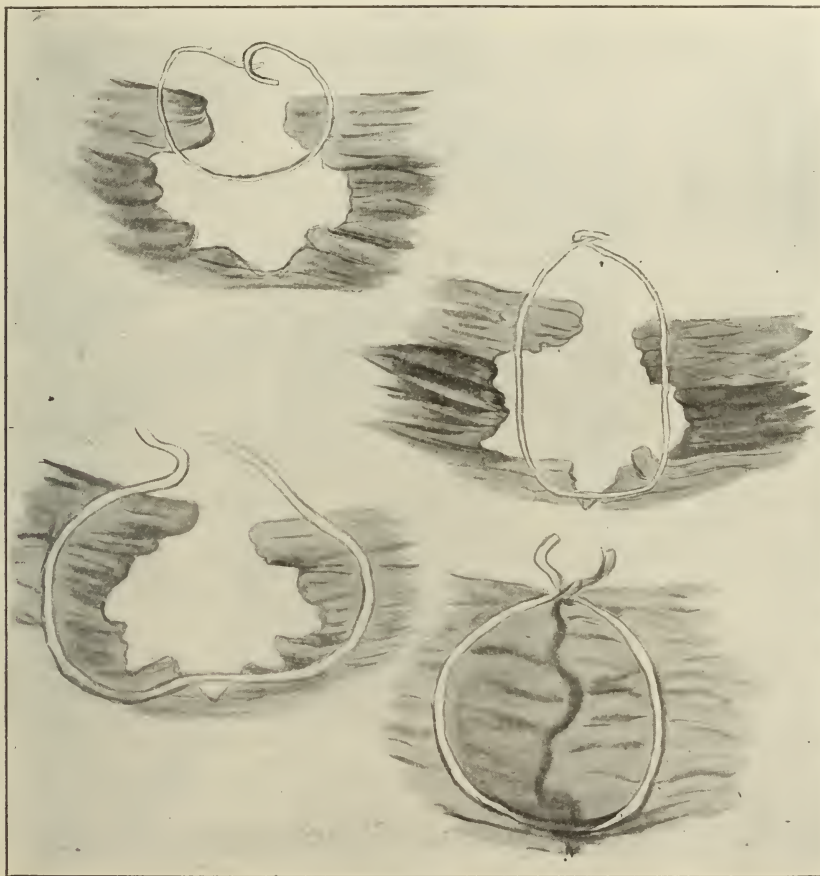


PLATE 3.

made. The obstetrician should wear rubber gloves. A half gallon or more of hot sterile water, or saline solution, should be suspended conveniently for washing the field, and the patient is placed upon a table or across the bed with the hips in a Morrison or Kelly pad placed at the edge for convenient drainage. The legs may be supported with a Kelly leg holder, or

for inspection. The lateral wall and floor of the vagina are separated with retractors as shown in drawings 2, 4, 5 and inspection or repair made as illustrated. If there is hemorrhage, the first stitch is introduced just above the angle of the tear 2 and 5. All stitches are placed so as not to encroach upon or enter the uterine canal, and are tied tightly so that

the involution in the muscle wall will not cause them to hang as ringlets. The canal is carefully examined as a precaution against possible narrowing from misplaced stitches.

The suture material used for the cervix lacerations, as well as all other tears in the canal, is 20 day, chromic cat-gut No. 1. This is found to absorb in from 10 to 15 days and does not require

II. Infection is less liable to occur when the torn surfaces are approximated.

III. The amount of scar tissue is minimized.

IV. Involution is delayed, and permanent hypertrophy may result, causing eversion of the lips, endometritis, and cancer, when deep tears are neglected.

V. A secondary operation with all its entailing inconveniences, responsibility



PLATE 4.

removal and possesses a desirable elasticity, which is an important quality when the muscle is atrophying.

The following reasons are advanced in favor of immediate repair of the cervix (*i.e.*, within 48 hours after delivery):

I. An extensive laceration is almost always followed by considerable hemorrhage, which is positively controlled by properly placed sutures.

and preceding suffering from existing pathological changes is avoided.

VI. It is an inviolable principle in surgery that the earliest possible repair of wounded tissues is the best conservation of the part.

VII. The obstetrician prevents an almost inevitable opprobrium of the patient and her friends for leaving her unrepaired.

Prof. B. C. Hirst⁵ reports that in the maternity department of the University of Pennsylvania not one of the women delivered in that institution is allowed to leave (if she accepts their advice) with any of the injuries of childbirth unrepaired, and he further says: "All injuries of the cervix have been repaired, without exception, for several years. The results

lege, reports that he closes every laceration of whatever form, immediately after labor, with the result that in the large majority union has been good.

In considerable work I have done at two maternity institutions, and that of my private practice, with the addition of associate work with my friend, H. Wellington Yates, M. D., I am led to conclude

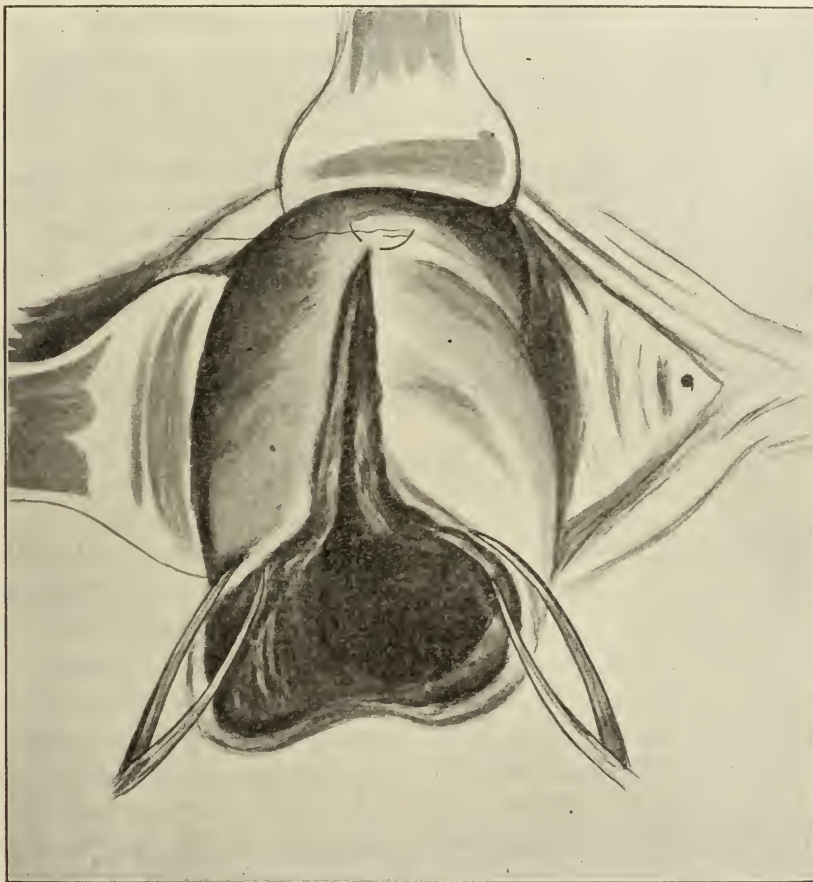


PLATE 5.

have been so satisfactory that the practice will be continued. It must become general, not only in hospital, but also in private practice."

Stricker Coles, M. D.,⁴ Demonstrator of Obstetrics in Jefferson Medical Col-

lege, reports that complete immediate repair work in the birth canal should be done where the conditions admit of aseptic preparations and satisfactory assistance, in all cases within 48 hours after delivery.

The frequency of lacerations of the pelvic floor and perineum is estimated by authorities as ranging from 25 to 50 per

(4) Stricker Coles, M. D., "The Immediate Repair of Lacerations after Labor, *American Journal of Obstetrics*, March, 1904.

cent. in primiparæ and from five to ten per cent. in multiparæ.

When injuries of the anterior and posterior vaginal walls are included this percentage will be low.

The essentials necessary in successful repair work in the vagina proper is a practical knowledge of the mechanics of the muscular structures with immediate approximation in direct apposition of like tissue structures. The importance of bringing muscle to muscle and fascia to fascia cannot be too strongly emphasized. (See plate 3.)

The obstetrician has limited his art, he has only an assumed prerogative of control over his legitimate field, when it

should be his duty and opportunity to do not a part but all of his obstetrical operations.

When all repair work is fully and efficiently done, we will have the system which Prof. Hirst⁵ says, if elaborated, would ensure women a practical immunity from all the ill consequences of chilbearing—which is perfectly possible—as great an advance will be made in medicine as has yet been witnessed, ranking with vaccination, anæsthesia, and asepsis.

(5) Prof. B. C. Hirst, Philadelphia, "The Importance of a More Careful examination and Treatment of Women After Childbirth." *American Medicine*, Nov. 29, 1902.

A PLEA FOR EARLY TRACHELORRAPHY.*

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Of the many obstetric accidents we find laceration of the cervix the most common and at the same time so frequent that laceration is the rule rather than the exception, a condition whose evil results are far reaching and the causing factor of a majority of the chronic pelvic ailments of women.

Laceration of the cervix in the majority of cases prevents involution and oftentimes indirectly, by being a source of infection, result in peritonitis and metritis and in various ways are productive of the many reflex neuroses that render her a semi-invalid, a nervous wreck, if you

please, making her life a burden and her future existence a blighted hope. This condition is responsible today for at least 90 per cent. of all malignant diseases of the cervix. Many and varied are the symptoms of laceration of the cervix. In a very few cases of slight tears, nature heals by first intention and the patient is soon well and enjoying her usual health, but in a great majority of cases we find different conditions. Nature utterly fails in her attempt to repair the tear. The lacerated cervix presents, upon examination, an inflamed, angry appearance. It becomes eroded. From it a copious discharge of mucopus is found and a large, heavy, boggy, sub-involuted uterus is the result. The patient suffers extremely from backache, dragging pains; she is

*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 25, 1904, and approved for publication by Committee on Publication of the Council.

more or less hysterical, troubled very much with leucorrheal discharge, coition is painful, and she submits to her husband only from the sense of duty. Painful, irregular menstruation sooner or later develops and the patient's condition goes on from bad to worse until every organ in the pelvis is more or less diseased, and until she has eked out a miserable existence, probably several years following the time of the accident, and then after taking tonics, local treatment, and more or less faith cure, and run amuck many species of quacks, undergoes an operation for the repair of the lacerated cervix, which, at this time, I must say from my experience of several hundred cases I have operated upon, I find but a very few are restored to health and not many even benefited. Taking into consideration the number of women who are lacerated at confinement and the evil results following, it is time we ask ourselves what is the prophylaxis, for certainly this picture would indicate the sad need of some etiologiical prevention that would lessen the many complications of parturition. We must admit that the late repair of the cervix does not remove or overcome the many lesions brought about by this pathologic condition, or, I should say, this neglected obstetric accident.

How can we prevent the untoward results of cervical lacerations that render so many women chronic invalids? I believe the pathologic findings of this condition and the fact that the late repair of the cervix does not accomplish the desired result, not only warrants us in performing "early trachelorrhaphy" but demands it of us as a duty to our patients. In speaking to early trachelorrhaphy I do not wish to be understood as advocating the imme-

diately repair which I think is unwise and dangerous, as the cervix cannot then be outlined and there would be more or less danger from infection from retained clots, the inability for the lochia to escape as it should, and the danger of after pains tearing out the stitches. I believe in all cases when there is no fever or local infection that the cervix should be repaired as early as the twelfth or fourteenth day. By this time involution has taken place sufficient to outline the cervix and observe the extent of the tear. By early operation we materially aid nature in the process of complete involution, prevent that low type of pelvic infection that is always present when there exists a laceration, and we find the patient convalesces more rapidly and her general health is preserved as readily as it naturally would be following a perfectly normal labor that is free from parturient accidents.

I realize that the early repair of the cervix is somewhat at variance with the teachings of our text books and the practice of many of our ablest obstetricians, but, nevertheless, I believe the objections are purely theoretical. Some say that by early repair of cervix we may possibly subject the patient to unnecessary operation, as many lacerations heal by first intention. This may be the case in a very few instances, but a tear that has not united in twelve or fourteen days never will. And again we find some offering objections to the early operation that the exposure of the cervix and the passing of sutures increase the danger of septic infection. Experience proves this objection to be untrue, if the patient is aseptically prepared for a vaginal operation, for certainly no condition could more favor sepsis than the already raw, angry, and un-

healthy surface of the laceration itself. In fact, one of the important objects is to prevent early infection. Done under the regular antiseptic precautions there is little or no danger. I have performed early trachelorrhaphy several times, and in every case have been more than pleased with the results. Union takes place rapidly; involution continues in a normal way, and in a short time we find a perfectly healthy and normal condition of uterus.

Ordinarily the early repair of cervix is exceedingly easy of performance after the ordinary aseptic preparation for any vaginal work. All that is necessary is simply to remove the soft granulations with a sharp curette and the apposition of the surfaces is complete. The tissue being soft, the stitches are passed with the utmost facility. I use carbolyzed catgut sutures and find they do the work very nicely. So slight and painless is the operation that I seldom ever find it necessary to give an anesthetic, differing very materially from the late operation when dense cicatricial tissue partially fills in the gaping tear. When we consider the extent of the pelvic disorders of women that are directly traceable to parturient accidents and especially, I may say, to lacerations of the cervix uteri, we are forced to admit that obstetric art has not made the progress that it should to keep pace with

other branches of medical science, or that the obstetrician has become more neglectful of his duty. Before the period of asepsis and antisepsis in parturition, and the assistance of trained nurses, and when infection ran rampant and every deviation from the normal was considered as the result of "meddlesome midwifery," but at the present time, I am sorry to say, the woes and anguish of child-bearing are very much intensified from the fear and dread of the many complications that follow in after years and which are the direct result of the neglected accidents which should have been looked after at the time by the obstetrician. So we find that as obstetricians a serious responsibility rests upon us. The life, health, and future welfare of the patient depends largely how well we do our work. It is a fact that at least one-half of the routine office work of the gynecologist of today is women suffering directly or indirectly from the results of the negligence of the obstetrician.

It is the duty of the obstetrician in each and every case to examine the patient at least as early as the tenth day, and if he finds a lacerated cervix, to repair it or attend to any other accident of the parturient canal that he may find present, so that before he dismisses the patient from his care she is left free from all accidents of child birth, and not until then do his duties and obligations in the case cease.

Graves Disease and Parathyroid Therapy.—

James J. Walsh (New York) reports four cases of Graves disease treated with desiccated parathyroids on the principle suggested by Gley of Paris, Munk of Berlin, and confirmed by MacCallum of Baltimore, that it is the absence of the parathyroid glands in the neck which produce the symptoms of Graves disease. In two mild cases, the remedy seemed to produce a good effect. Walsh concedes suggestion plays a large role in the re-

lief of the symptoms in milder cases of Graves disease. In two severer cases, the remedy failed utterly to give relief and in one case seemed to cause an exacerbation of the symptoms somewhat as if thyroid extract were being given. It is not absolutely certain that the parathyroid material was absolutely free from all admixture with thyroid substance, though it was very carefully prepared for these cases.—(*American Medicine*, May 20, 1905.)

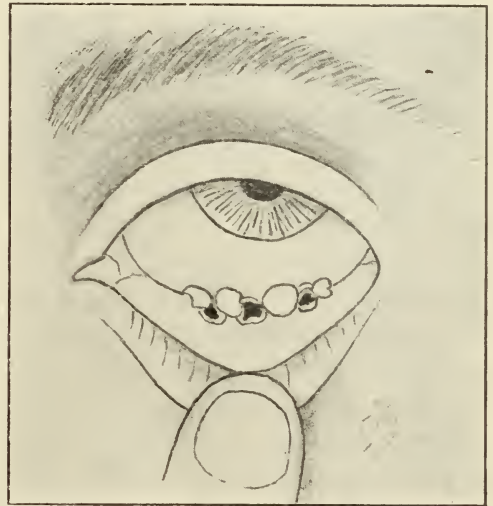
PARINAUD'S CONJUNCTIVITIS.

O. A. GRIFFIN,
Ann Arbor.

Since 1889, when Parinaud, of Paris, reported to the ophthalmological world the occurrence of a new affection of the conjunctiva, this form of conjunctivitis has been regarded as exceedingly rare, but of late, however, probably on account of a more wide-spread knowledge of the condition, many instances are being recognized as shown by a recent report of Verhoeff and Derby who have collected twenty-two cases from the literature. Undoubtedly, many other cases have been encountered, but have passed unrecognized because of their anomalous nature and occurrence. Inasmuch as instances of this disorder, so far as I am aware, have not been observed in this locality, the following case which is characteristic in its symptomology may prove of general interest.

On November 1st, 1902, Miss B. C., aged 14 years, daughter of a druggist, was brought to me for consultation regarding the condition of her left eye which, save for a fulness of the lower lid, apparently presented a normal appearance externally. Her father stated that, about two weeks previous, the left eye alone became suddenly inflamed, attended with pain, photophobia, a marked swelling of the lids, and a profuse watery discharge which became purulent in the course of a couple of days. This condition obtained only a few days, under the simple course of treatment which he employed, when the inflammation and discharge rapidly diminished. During the following week, however, the eye appeared slightly irritable, especially within the lower lid, attended with a feeling of fulness in that region which was so annoying as to lead to a consultation.

Upon eversion of the lower lid, the following condition, as illustrated in the accompanying cut, was presented. Situated upon the retro-tarsal fold was a mass of polypoid granulations in the midst of



which were observed a few areas of superficial ulceration. An erosion was also present upon the top of one of the larger granulations. The two larger granulations which obtained upon either side of a large central ulcerated area were somewhat pedunculated, and presented an anæmic translucent appearance, while the smaller granulations were reddish-grey in color and irregular in outline. A small amount of thick glairy secretion rested about the peduncle of the larger granulations. Aside from these alterations and a slight injection of the ocular portion in the region of the lower fold, the conjunctiva presented an otherwise normal appearance.

Treatment of the condition was instituted, which consisted in cocainization of

the granulations and a removal of the larger ones by means of scissors, after which daily applications of a solution of Argent. Nitrat., grs. xx ad oz., were made to the remaining granulations. In the course of a week, however, it was observed that the pre-auricular lymph-glands upon the corresponding side of the face were enlarging and becoming painful to the touch and motions of the jaw. As the swelling of these glands increased which was quite rapid, a slight fever developed, attended with a feeling of depression which obtained for several days. About this time a few of the cervical glands also showed evidences of infection; but fortunately, after enlarging for a period of a week and assuming alarming proportions, the swelling of the glands gradually subsided without suppuration, although at one stage this seemed improbable. As to the course and termination of the ocular condition, under the previously mentioned treatment, the granulations rapidly disappeared within the course of a couple of weeks, leaving naught to indicate their former position and existence.

As to the etiology of this affection, it may be said that nothing definite has thus far been ascertained, although the cases reported by Parinaud would tend to support his theory that it is due to an animal parasite, but on the contrary, the majority of observers, including myself, are unable to associate the disorder with an animal origin.

SUMMARY.

Parinaud's conjunctivitis is an acute infectious disorder of the conjunctiva characterized by a sudden onset, marked swelling and thickening of the lids, profuse discharge which rapidly ceases, formation in course of a couple of weeks of large fungiform or polypoid granulations in the region of the retro-tarsal folds, areas of ulceration between and upon the granulations, one eye only being affected, sudden and marked inflammation of lymph-glands upon corresponding side of head which usually subside without suppuration, and a tendency to spontaneous resolution of both the ocular and glandular disorders, within the course of a few weeks, without injury to the cornea or other ocular structures.

ACUTE SUPPURATIVE OTITIS MEDIA AND ACUTE MASTOIDITIS.*

CALVIN R. ELWOOD,
Menominee.

Many of the laity consider a running ear a matter of little importance because their relatives or friends have endured similar discharges for weeks, months, and even years with little discomfort, and this indifference of the public is unfortunately shown by some of the profession. The serious results of neglect, which come to

the notice of the otologist is my excuse for presenting to you this much discussed subject.

The middle ear and mastoid cells, being the terminus of a closed cavity whose only external opening is the Eustachian orifice, has little protection against infection, and frequently falls the victim of the festive streptococcus and pneumococcus conveyed

*Read before the Upper Peninsula Medical Society.

thither from the nasopharynx. The presence of adenoids in the nasopharynx is often a predisposing cause of middle ear infection through interference with the ventilation and drainage of that organ and should be looked for and if present removed in every child complaining of earache. Neglect to do this beneficial operation will often result in recurrent attacks of earache with subsequently impaired function. As demonstrating the value of adenotomy in these cases I would mention a child brought to my office recently, whose parents had been told he could not remain in school as he was too deaf. The nasopharynx was a mass of adenoid vegetations, the removal of which resulted in normal function. Less striking instances of improved hearing after adenotomy are of frequent occurrence—indeed improved function is expected. Scarletina and epidemic influenza are the most important exciting causes, (and probably the most frequent next to exposure to cold or infection transmitted through the Eustachian canal), but it is also a common complication of the other exanthemata and pneumonia. In the majority of cases, suppurative otitis in children is the result of bacterial infection conveyed from the nasopharynx, and for this reason every practitioner should observe carefully the conditions of the upper air passages.

The symptomatology of this disease is familiar to us all—the pathology is a supuration of a membrane, lining the practically closed cavity of the middle ear and opening through the attic into various ramifications of the mastoid cells. After careful study and dissection of several mastoids the wonder to the writer is—not that mastoiditis does occur—but that it does not occur in many more serious middle ear suppurations; this communica-

tion between middle ear and mastoid is so free that by pouring moulten lead into the middle ear one can obtain a cast of the entire mastoid process.

The old surgical axiom, "Whenever there is pus leave it out," is to-day quite as pregnant with truth as it was when first promulgated by the elder Gross. When the middle ear as well as other cavities is filled with pus, it must be thoroughly evacuated. If after careful inspection of the drum membrane one is convinced that pus is behind it (that he is dealing with suppurative and not simply a catarrhal inflammation) the auditory canal should be thoroughly sterilized and the pus evacuated through a free incision of the tympanic membrane. The bent handled paracentesis knife is a much neglected and in careful hands most useful surgical instrument. By keeping well to the posterior margin of the membrane, with a sharp knife and using little force as possible so as not to disarticulate the incus should you perchance touch it, the surgeon furnishes a far better exit for pent up pus than Nature would through subsequent perforation, saves the patient hours of agony, prevents damage to the tissues from retention and in some cases aborts a threatened mastoiditis. The incision should extend from the posterior inferior to the posterior superior quadrant and in the membrana flacida be sufficiently deep to incise the connective tissue folds. It is my custom to extend the incision through Shrapnell's membrane and along the superior posterior meatus for a short distance. With careful consideration of the anatomy of the parts and good illumination the operation is absolutely without danger and should be done in every case of acute suppurative otitis media if seen before spontaneous perforation has taken

place. By paracentesis you have: (a) the opening most advantageously located for drainage; (b) the membrana tympani has a clean incision instead of a rupture which will repair with much less danger of impaired function; (c) the drainage is not only sufficient but properly located, whereas it is often necessary to enlarge spontaneous ruptures before sufficient drainage is obtained, and (d) most important of all, the delicate tissues of the tympanic cavity are saved the damage which must come from prolonged contact with pus under pressure. An experience of eight years in special practice has taught me to consider the paracentesis knife one of the most valuable instruments. How much more so would it be, properly used, to the general practitioner who sees these cases in their earlier stages!

I firmly believe that most cases of chronic suppurative otitis media are the result of either neglect, improper or inefficient treatment during the acute stage, many of which could have been avoided by a proper paracentesis made at the proper time. I prefer to do this simple operation under nitrous oxid or ethyl chlorid anesthesia as the incision of the inflamed membrane is intensely painful and can be so much better done with a quiet patient. A striking example of its value was a recent case at the hospital of a man who presented two conclusive symptoms of mastoid infection, in whom fever had existed for a week with no discharge. A very free incision of the membrane and also of the posterior superior wall of the canal resulted in the evacuation of a large amount of pus and convalescence, although for two or three days an operation seemed unavoidable. In this case the free incision of the posterior su-

perior canal wall constituted an internal Wilde's incision (to my mind much more valuable than the formerly much praised external incision) and some pus was discharged from the adjacent mastoid cells.

After incision of the membrana tympani it is my custom to draw out of the cavity all the accumulated secretion possible with a pneumatic speculum, syringe gently with warm boric acid solution, dry thoroughly with cotton tipped applicators and promote drainage by inserting a narrow wick of gauze well against the tympanic membrane. There is no danger about the incision healing, the danger is that it will heal too soon. There are very few if any cases of acute suppurative otitis in which this procedure is contraindicated.

While urging tympanic incision in all cases of acute suppurative otitis the writer is reluctant to endorse its use, as do many, in all cases of acute inflammation of the middle ear. There may be cases of acute earache, associated with rise of temperature, in which the inflammation is simply catarrhal but which become purulent after paracentesis, even when extra tympanic infection can be excluded. The predisposing cause being according to Andrews, the sudden removal of excessive intratympanic pressure. A positive differential diagnosis is often difficult depending upon the duration, severity of the attack, appearance on otoscopic examination, and in doubtful cases the result of twenty-four hours' treatment as acute catarrhal. When in doubt do a paracentesis. If the inflammation be purely catarrhal the insertion well into the external canal, of a cotton pledget the fluffy tip of which is saturated with carbolic acid in glycerin, will give great relief. Indeed, together with attention of the nose and pharynx usually cures the disease. Glycerin acts

as a depletant to the inflamed mucous membrane and by filtration osmosis probably carries the phenol into the tympanic cavity.

The treatment of suppurative cases after paracentesis consists in changing the wick daily or twice daily, depending upon the amount of discharge, and thoroughly cleansing the parts with cotton tipped applicators. Frequent irrigation and the use of hydrogen peroxid and middle ear inflation in acute cases are not without danger. The former creates a sodden condition of the tissues most favorable for multiplication of germs, while the latter is liable to favor extension of the infection into the mastoid.

Notwithstanding the most careful treatment of acute middle ear suppuration, extension to the mastoid cells will sometimes occur, such extension being influenced by the character and virulence of the infection, the atomic arrangement of the parts, and the patient's resisting power.

The symptoms of mastoid involvement are frequently out of all proportion to the damage done and too long delay of surgical interference is dangerous. Sudden cessation of discharge during the progress of an acute suppurative otitis is often an indication of extension of the infectious process, as is pain in the mastoid. This pain is usually more severe at night, disturbing sleep, and in children restlessness may be an important suggestive symptom. Pain on deep pressure over the antrum is a symptom of vital importance. In determining mastoid tenderness care must be taken that the pain experienced in the manipulation is really mastoid tenderness and not dependent upon an inflammation of the external canal. No error need occur if, when the examination is made the examining finger is pressed backward and

inward, as by this method the external canal is not disturbed. The tender point is usually over the antrum which is located by the triangle formed by the intersection of the tangents respectively of the posterior and superior bony canal. There is always some mastoid tenderness in certain individuals so the healthy mastoid should be compared. A sagging of the posterior superior wall of the canal, close to the drum membrane, is a symptom of even more importance than pain on deep pressure. Examination of specimens will show that the mastoid cells are usually abundant in this locality and account for this condition. Dench, notwithstanding his extensive experience, states that he has never met with an instance in which when this symptom was present operation upon the mastoid did not reveal the presence of pus. Gleason attaches great importance to continued tenderness to pressure on the tip of the mastoid cells in cases associated with extensive necrosis in this portion of the process. In these cases tenderness on pressure over the antrum and sagging of the posterior superior wall may be very slight as the infectious process is in the lower portion of the mastoid. Andrews suggests the value of auscultation of this region. With a special bell $\frac{5}{8}$ of an inch in diameter placed over the mastoid tip—the vibrations of a tuning fork, placed over the antrum, are heard more distinctly and longer if the mastoid cells are filled with pus or granulations, or when its density is increased from bone proliferation. Extensive tumefaction over the mastoid suggests perforation of the abscess and incision of the mass usually results in copious evacuation of pus. It is a common error that such external rupture terminates the danger of intracranial involvement and these cases

should be subjected to the usual operation, as by it all infected material is removed, convalescence hastened and danger of impairment of function greatly diminished. Fever is an unreliable symptom, seldom high in adults, and frequently no reliable index of the destructive process taking place in such close proximity to the cranial cavity.

When mastoid symptoms develop the prevalent use of the hot water bag is unfortunate as it may promote suppuration in a locality from which the pus cannot escape without rupture into the adjoining tissues or cranial cavity. When these symptoms do arise we must be convinced that there is free drainage for the middle ear, brisk saline elimination should be practiced, patient placed in bed and ice bag kept constantly over the mastoid for from 24 to 48 hours. The ice bag is a valuable diagnostic as well as therapeutic agent, as it will aggravate neuralgic pain while it relieves pain the result of an inflammatory process. For this reason it is liable to abuse by keeping the patient fairly comfortable while a serious necrotic process is unchecked. The employment of leeches or counterirritants at this time is unwise as they tend to obscure subsequent symptoms.

The question when to operate is often difficult and clinical experience has taught that delays are dangerous. The symptoms are often no correct indication of the damage done. In a Chicago clinic I recently saw a case operated in which the parts were so broken down that only the curette was needed and then a large area of the lateral sinus and middle cranial fossa were exposed. Before operating the surgeon stated he would not feel justified to interfere as the symptoms had been very mild, were it not a sequel of la-

grippe which had been responsible for many severe cases of mastoiditis in his practice. Some time ago I was called to the death bed of a patient the victim of intra-cranial rupture of a mastoid abscess, who had recently returned from a pleasure trip. She had mild symptoms for weeks following an acute suppurative otitis but had continued her usual occupation until the day before her death.

I recently saw in consultation a child 11 years old who gave the following history: Four weeks previous she had measles with an acute suppurative otitis which responded to home treatment to such an extent that patient returned to school. Four days previous to my first visit she felt badly but it was not thought necessary to call a physician. Three days later the family physician found patient with temperature 101° , vertigo, fluctuating tumefaction over the mastoid with edema of the posterior superior wall of the meatus. In consultation I most heartily endorsed his diagnosis and advice for immediate operation, which was performed the following day. Incision revealed the mastoid a broken down and pus infiltrated mass, curettement of which exposed the lateral sinus. After operation 99.1° was the highest temperature and this only on the following day. Next day patient felt fine, her only complaint being that she was not allowed to get up. The dressings were not changed for five days when practically no pus was present. The fact that the meninges were found exposed to a necrotic purulent mass justifies the statement that non-surgical treatment would have resulted fatally. A few days ago I tested her hearing on the side operated and found no impairment compared with the opposite side—watch 18 inches and whisper at 15 feet.

A subsequent case caused me much anxiety by persistent subnormal temperature after operation. The patient, a strumous school girl, was referred to the writer one week after an attack of suppurative otitis complicating tonsillitis. The membrani tympani had ruptured spontaneously during the first 24 hours, and there was now free discharge, temperature varied around 100° —patient complained of a dull headache and function on the affected side was nil. Free paracentesis was made and non-operative treatment conducted for one week at the end of which time there was no improvement. Headache was severe, temperature 99.2° to 101° , very slight bulging of Shrapnell's membrane and posterior superior canal wall—with little tenderness on deep pressure—but the ice bag *increased* the discomfort. The Schwartz operation was performed and liberated considerable pus from the mastoid tip. Although great care was taken to remove all infected bone I did not expose the meninges. Relief from symptoms was immediate, temperature rose above 100° only once the following day and the second day after operation was taken frequently remaining most of the time about 97° , and the third day one-half a degree higher. This sub-normal temperature worried me greatly and I searched otologic literature for an explanation. It was not due to any intracranial complication as patient made an uneventful recovery—left the hospital ten days after the operation and now hears the watch at two feet and whisper at fifteen.

The principal qualification for the surgeon is knowledge of the anatomy which enables him to avoid the facial and if the bone is not necrotic the lateral sinus and middle cranial fossa. If it is necrotic

knowledge of their location enables him to avoid perforation of the dura.

This disease is always a menace to life, the operation seldom although a radical procedure not to be entered upon unnecessarily, but when properly performed before intracranial complications have arisen, will greatly improve the chances of recovery in many patients suffering from this most dangerous of the complications of acute suppurative otitis media.

CONCLUSIONS.

1. Adenoid vegetations, especially in children are frequently exciting and always predisposing causes of acute suppurative otitis media and should be removed.

2. When pus does form in the tympanic cavity it should be evacuated, the sooner the better; a properly performed paracentesis being preferable in every way to spontaneous rupture.

3. Too vigorous after-treatment is to be discouraged.

4. Most cases of chronic suppurative otitis media are the result of neglect or improper treatment during the acute stage.

5. When the mastoid symptoms do develop energetic treatment indicated, operation far less dangerous than disease if not promptly checked by less radical measures.

Sanitation of the Summer Camp.—H. B. Bashore points out the necessity for adequate sanitary arrangements in summer camps. All combustible rubbish should be burned and putrescible waste should be put into a regular garbage hole and covered every evening, at least, with earth. The best way to dispose of human excrement is by means of the dry closet, and two simple forms of this are described and figured. The selection of a suitable water supply is also discussed.—*Medical Record*, May 20, 1905.)

Therapeutic Notes.

FOR HIGH BLOOD PRESSURE—

Potassium bicarbonate.....grs. xxviii
 Potassium nitrate.....grs. xviii
 Sodium nitritegrs. ivss

Sig.—Taken in a glass of water in the morning. (BRUNTON.)

FOR HIGH BLOOD PRESSURE—

Sodium sulphategrms. 14.
 Sodium chloridegrms. 4.9
 Sodium phosphategrms. 15.
 Sodium carbonategrms. 21.
 Potassium sulphategrms. 40.
 Aq. dist. ad.....grms.100

Sig.—One C.C. (hypodermically) every four to seven days. (*Med. Press*, Nov. 26, 1903.)

TWO NEW HYPNOTICS.—The two hypnotics that have attracted the most attention in the last twelve months are Hedonal and Veronal. Hedonal (methylpropylcarbinolurethane) is a white crystalline powder, of a menthol-like taste, almost insoluble in water, but soluble in ether and alcohol. J. Fraczkie-wiez (*Therap. Monatshefte*, 1903, No. 11) concludes that it is useful in insomnia of hysteria, neurasthenia, senility and psychoses of milder grades, but that in insomnia from pain it is without effect. It produces within from $\frac{1}{4}$ to 1 hour, a moderately deep, dreamless sleep, lasting 5 to 8 hours, not followed by unpleasant after-effects. Even when it was used for a considerable period no harm resulted. The dose was 20 to 30 grains.

Veronal belongs to the urea group of hypnotics, being chemically diethylmalonylurea. It is a white, crystalline powder, soluble in about 12 parts of boiling water and in 145 parts of cold water. The dose is from 8 to 15 grains. R. Landenheimer

(*Therap. der Gegenwart*, 1904, No. 1) reports a case illustrating the possibility of habituation. G. Clarke (*Lancet*, Jan. 23, 1904) reports a case of poisoning with veronal (24 grains). A large number of clinicians, however, have testified to the value of veronal as a somnifacient in the last year. (*International Clinics*, Vol. 1, 1905.)

NEURALGIAS TREATED BY SUBCUTANEOUS INJECTIONS OF AIR.—Under Antiseptic precaution and with care not to draw any blood, a needle is inserted into the intramuscular planes of a chosen site and a bicycle pump or a bulb of a Pacquelin cautery being attached, the desired quantity of air is injected. This varies from $\frac{1}{2}$ pint to 1 pint, depending on sensations of the patient. Light massage should follow the procedure. It is well to repeat this daily until the crepitation due to the air has disappeared. Of 25 cases of sciatica treated by this method 13 were cured. This treatment is applicable to various forms of neuralgias which resist other methods. (*The American Journal of the Medical Sciences*, May, 1905.)

A NEW DRUG FOR DIMINISHING SWEATING.—Eumydrin, methylatropine nitrate, prevents excessive sweating especially in pulmonary tuberculosis. Eumydrin is a white powder, moderately soluble in water. It is given in doses of from 0.015 to 0.0375 grains. Most patients bear it well. In addition to checking the perspiration in tubercular conditions, the patient's general condition is improved, the appetite is increased and his bodily vigor is augmented. (*Engländer, Weimer Klinisch-therapeutische Wochenschrift*, 1904, No. 48.)

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Editorial.

SHALL THE STATE LEGALIZE THE PRACTICE OF MEDICINE BY OPTICIANS?

The druggist's legitimate business is to compound and sell drugs and appliances in accord with physicians' prescriptions—but not infrequently he both prescribes and sells—viz., is both physician and druggist. The optician's business is to fill the prescriptions of physicians—for the relief of refractive and muscular defects, but he also often prescribes, as well as sells glasses—viz., is both physician and optician. The druggists have never sought to have their "counter prescribing" legalized; not so the opticians.

In many States efforts have been made by them to secure State recognition of their incursions into the domain of medical practice. Thus far they have failed, except in two States, thanks to the "horse sense" of legislatures as developed by the instruction of physicians.

The matter was brought before the people of Michigan, through a bill introduced into the House March 22, entitled a "Bill to Regulate the Practice of Optometry." It defines this practice thus: "The employment of subjective and objective mechanical means to determine the accommodative and refractive states of the eye and the scope of its functions in general, and the adaptation and ad-

justment of lenses or other appliances for the relief thereof and the aid of vision."

Provision is made for a State Board to examine all new comers into this field, and to punish all who have not passed the examinations it directs. Physicians and surgeons are exempted from this examination as are all persons "who sell spectacles or eye glasses without attempting to traffic upon assumed skill in adapting them to the eye."

The enactment of such a law would damage the entire people. The people are composed of the medical profession and the laity. The present medical law gives to the medical profession exclusive right to care for the sick, deformed, lame, halt, blind, etc., etc.; in return for this exclusive right it requires of each doctor a long, laborious and expensive course of training, and the passing of a strict examination. The practice of optometry is as much a part of medical practice, as the treatment of diphtheria, an operation for appendicitis, cataract or strabismus.

This proposed law is intended to place the expensively trained physician in competition with the cheaply trained optician. Farther, this competition is tainted with commercialism. The opticians are usually clerks in jewelry, grocery, drug, department or general stores. The profits are large on this class of merchandise. Hitherto there has been a limitation in the use of mydriatics. With this proposed new State authority these people can use mydriatics, in fact practice medicine so far as is profitable in the prosecution of their business.

The limitations of professionalism forbid the doctor to advertise, and so meet the competition of the advertising optician. Hence the rights of physicians under the existing medical law would be

materially impaired should this bill become a law.

The people would be damaged because the State stamps as competent to practice medicine in certain fields, those who are not physicians. Misled, they will increasingly trust their eyes to those devoid of the training requisite to deal with the complicated problems presented. The damage thus resulting in the past will be vastly increased should the proposed law prevail. The greed of gain by commercial houses prompts them to engage in the practice of medicine at a fearful sacrifice of the people's eyes. Cases like the following often present themselves to the ophthalmologist's consulting room. A person past middle life, begins to fail in vision. Attracted by the advertisement that R. G. & Co. examine "eyes free" he purchases glasses of the house. In a short time the eyes again fail. Again the house advertising free medical examination of eyes is consulted, and again glasses are purchased. This is repeated till practical blindness presents. The doctor is then appealed to but finds that an insidious glaucoma has done its work, the person is blind beyond relief. In the same manner, diseases in the fundus of the eye, are treated by the optician, with the assurance of ignorance, and the time for successful treatment having passed unimproved, permanent loss of vision results. Then are the cases, in which organic disease of distant organs might be recognized by a competent doctor, and the patient properly treated, recover; instead they pass through the gates of the "optician's ignorance" into a chronic invalidism, or the unknown of the next world.

Another class of cases are associated with complicated derangement of the digestive or nervous systems; they, too,

trusting in the "optician" rather than the "doctor" learn but too late their fatal mistake. In ways such as these the people have been damaged by opticians, and should their past practice be legalized, the damage will be far greater. The interests of the entire people demand the highest skill of the trained doctor in the so-called "fitting of glasses." The proposed bill should be opposed by all who value their neighbor's eyes, as a part of community prosperity; who resent the attempt to steal rights already given the medical profession; who object to encroachments of business houses upon professional work.

This bill to secure State endorsement of a scheme "to traffic upon assumed skill in adapting spectacles and eye glasses" without a physicians' education, is a colossal exhibition of monumental cheek.

On May 11th the above Bill was killed in committee—showing that it possessed the backbone to refuse to stamp with State authority those desiring to practice medicine without passing the scrutiny of the people's "Medical Examining Board."

OLD MEN IN STATE MEDICAL ORGANIZATIONS.

The student of the medical profession notes comparatively few old men in medical societies. They care little for organizations; embittered, oftentimes, because dropped from membership. It is exceptional that they speak a good word for the organization which turned them out and often they infect the young practitioner with bitterness, and so keep him from working with his State organization.

The reasons why they did not pay annual dues, may be manifold: the enfeeble-

ment of sickness, or age; the misfortune of a larger expenditure than income, from various causes, till absolute poverty forbids other than necessary outgo.

They may have served the organization five, ten, twenty or even forty years, and done much to maintain the dignity and honor of the profession, the result is the same; lack of payment of dues consigns them at the last to the waste basket provided for such as are longer unable to actively serve.

A moment's reflection will convince the most obtuse that this state of things obstructs the best life of professional organization. Certainly old and honored members therein should never be permitted to escape its fold, because of misfortunes incident to the latter stages of human life. The least that the organization should do is to place such (under suitable regulations) in a list of honorary members with all the rights and privileges but none of the financial obligations of active membership.

To start and maintain such a list of honorary members, calls for tact, good judgment, but each state organization contains much of these qualities. To draw the line between productive ability and non-productive, so that all may recognize the fitness of the same is not an impossible art.

In its new organization the Michigan State Medical Society has attempted to solve this problem in the manner indicated. It may be that experience will point to a better way, but the principle once adopted, we may safely leave the details to the good sense and tact of the Society.

The profession will never be organized till every doctor in every county is a member of the county society, and every county a branch of the State Society—till he

enters this organization as soon as he hangs out his sign and remains there till he has drawn his last breath. To attain such organization past methods of dealing with old men must be revised. We shall be glad to learn of a better method than that adopted by the Michigan State Society.

UNFAIR DISCRIMINATION BY CHEMICAL DEPARTMENT OF MICHIGAN UNIVERSITY.

Current report says that lately the Flint authorities applied to the Chemical Department of Michigan University for an investigation of a case of poisoning. It was told that the case would be undertaken only on payment of one hundred and fifty dollars, and this strictly in advance.

Yet this department teaches students toxicology, and this case would have furnished practical material just such as the students are likely to meet in actual practice. It would seem that the department would have been glad to take the case for the boys to "practice" upon, just as they take the sick into the University hospitals.

We think the University did right, and only wish it would apply the same rule to the Medical Department, viz.: charge full professional fees of such as are able to pay the same, as it charges board in the hospitals. To the poor give both board and professional service free.

The University did right to turn down the City of Flint, when it applied for free chemical service from experts; but in common fairness it should turn down the "well to do" who apply for medical or surgical treatment. Instead it only re-

ceives the "well to do," viz.: those able to pay board in advance so long as they expect to stay in the hospital. Those unable to make this advance payment must seek relief elsewhere. Yet the University needs these poor people for its clinical teaching and turns them away to give room to those who can pay hotel prices for quarters in the hospital. If it would allow its professors to charge full fees as it does the chemical professors there would seem to be an equity in the matter. We trust the Regents will apply the same sort of rules to all departments, under similar conditions—treat all alike.

WHAT IS THE AMERICAN MEDICAL ASSOCIATION DOING FOR THE INDIVIDUAL DOCTOR?

It has promoted the evolution of the State Medical Societies till now thirty-three are in active co-operation.

It has promoted the evolution of the County Societies in each State, so that each individual doctor may have a part in the activity of his local society; a part in the conduct of his State Society; a part in the activities of the American Medical Association; and a voice in the direction of national professional interest. There should be no kicking against the acts of the National Society, as every doctor has a voice in shaping them as he desires.

Because the individual doctor so desired, he possesses a National Journal devoted to his interests, his support of it will make it still better—though now it is the best general medical journal in the world—made so by the combined labors of the best physicians in the country.

The Association made possible the development of the State Medical Journal, which has a function to serve the individual doctor all its own. It is for the doctor to help his own State journal by promptly paying his dues, writing his best thought and work, and stimulating others to do the same.

The Association has established a Council on Pharmacy and Chemistry, with large powers. Its object is to help the individual doctor know more definitely the nature and exact composition of the drugs he uses, not within the U. S. Pharmacopœia. It aims to throw light on the dark spots of his pathway; that he may know just where he is stepping, and the tools he is using. Rightly conducted, this Council will prove to the individual doctor of the greatest service.

From time to time it has had reports and investigations on medical education—this same work is to be enlarged and rendered more thoroughly by a Council on Medical Education. Possibly future members of the profession will join our ranks better fitted for their work—made so by the exhaustive study and persuasive efforts of this Council—if so, the individual doctor will reap the benefits thereof.

It is now preparing a directory of the physicians of the United States, owned, and managed, for the benefit of each individual physician—it is hoped that members of the County Societies will tell this to non-members that they may join the County Societies, and gain the benefit of being enrolled in this list. It is pretty sure that Insurance Companies and others seeking competent physicians, will adopt this publication. Those in it stand a chance of getting a job with good pay

therefor. Already the lists of State Society members are largely depended upon for accurate information respecting the individual doctor.

The individual doctor has been benefited by the efforts made for more uniform licensing and the reciprocity between the states. Farther progress is being made by the National body in the hope of finally securing the much to be desired reciprocity, in the interests of the doctor who desires or is compelled to move from one State to another.

Perhaps the best service of the American Medical Association is its vigorous promotion of interest in questions of National scope; a pride of being one of seventeen thousand doctors; an enthusiast in the work of enlisting the co-operation of the hundred thousand other doctors in the task of rendering themselves worthy of their own self-respect, and that of the laity.

THE PETOSKEY MEETING.

The attention of the members is called to the Fortieth Annual Meeting of the State Medical Society to be held the last three days of this month, June 28th, 29th and 30th, at Petoskey, the program of which appears in this issue on page 287. All preparations are complete for the entertainment of the visitors and it is hoped and expected that every physician will deem it his duty, privilege and pleasure to attend the Annual Gathering. Every one who has the welfare of his profession at heart should not fail to devote these few days at her shrine, for no greater impetus for the hard work of the coming year can

be given than the approval of the individual member expressed by his presence.

Mr. Pack, the Manager of the New Arlington Hotel (Headquarters), will send a special invitation to each member. That he may be able to judge of the number who will attend a postal card will be enclosed, which it is requested each member will sign and post at once.

On to Petoskey, June 28th, 29th and 30th.

SCIENTIFIC EXHIBIT

The "Scientific Exhibit" will be a unique feature of the Annual Meeting at Petoskey. As has already been stated in the JOURNAL the exhibit is confined to diseases of the "Gastro-Intestinal Tract." Besides the display in the Exhibit room, where will be presented a collection of casts and illustrations of stomach-analysis, pathological specimens, crude and finished drugs used in the treatment of diseased condition of the alimentary tract, together with the surgical appliances. The Committee will give on Wednesday evening, June 28th, a lantern slide demonstration. Drs. Warthin and Cowie will give a demonstration on "Tissue-bits in the Stomach-washing, and Their Aid to Diagnosis," and Dr. Hickey will present some X-ray slides.

Any member who has a contribution in the way of specimen, chart, surgical instrument, drug, etc., to offer, will please communicate at once with *Dr. A. S. Warthin*, Pathological Laboratory, University of Michigan, Ann Arbor, or take the same with him to the Petoskey meeting, June 28th, 29th and 30th.

County Society News.

BAY COUNTY.

The Bay County Medical Society held its regular meeting in Bay City, May 10, 1905. Harvey Gilbert read a paper on "Prevention of Communicable Diseases."

Abstract:

About the year 1867, a German physician ventured the opinion that diphtheria was a disease of local character, due to the presence upon the mucous membrane of the throat and nasal passages of a vegetable parasite or fungus, acting upon the exudations from the blood into the cellular tissues, as a ferment. At that time little or nothing was known of these microscopic bodies, although there was, to be sure, a germ theory as to the cause of disease.

To-day there is a science of bacteriology, and twenty-eight different and separate diseases are traced back in their origin, to some form of microscopic life, either vegetable or animal. Seventy-five per cent. of all deaths are rated as caused by one or another of these twenty-eight diseases. We might safely and scientifically add to the above list, all such diseases as result some time in their course in actual lesion. All these diseases being due to influences originating, as far as the person so attacked is concerned, outside of the body, are classed as communicable, and being communicable, preventable.

About the year 1880, the Klebs-Loeffer bacillus was accurately described, and very soon thereafter other bacteria, until at the present time a large number of characteristic diseases are readily traced to a characteristic cause.

A cause for each disease has been determined and the treatment, while admittedly imperfect, is reaching down to a sound basis of truth, but as applied to prevention, all knowledge is in a chaos of doubt and uncertainty. Prevention is the leading chord, the key-note; and it should be and must be the aim of our profession not to restore health when lost but to maintain health while still unimpaired.

A discussion of the phenomena of disease, as produced through the agency of any of these parasites should be of interest, had we the time. Whether the germ is the result of the lesion or the lesion the result of the germ merits but a passing notice; but whether the characteristic bacteria will in all subjects and at all times produce the characteristic symptoms of a disease is a question of moment; and were we able to answer this question positively, the solution of the more

important question of prevention would at once be apparent. The toxemia, the autointoxication, if we may use the term, appears to be the cause of death, although it is not improbable that death might be produced from some mechanical interference with the normal functions.

Again, through the course of many of these diseases, a new phase may be developed, not constant, but sometimes, i. e., pyaemia. Have we then two distinct diseases and two distinct causes? This point raised may seem at first far fetched, but it is worthy of more attention than it has received. One feature has been mentioned by some, and observed by all; it is the change, chemically speaking, in the product of the lesion. May we not be deeply concerned as to the importance of such change?

The identity of the Klebs-Loeffer bacillus, a toxemia as a result therefrom, and the satisfactory results following the early exhibition of the anti-diphtheretic serum, are accepted by all; and under the enforcement of the public health laws, the isolation of the patient and the disinfection before release seemed possible of satisfying our most sanguine desires and expectations; sometimes, however, when we feel most secure the danger is greatest.

For several years the association of boards of health in the state of Massachusetts have through systematic work been endeavoring to learn how well isolation isolates; in other words, what portion of the community outside of the quarantined houses, though apparently well, were infected and capable of communicating the disease. I quote the committee's remarks upon their tabulated report, which says: "Our observations show that an average of three per cent. of all the people examined had typical diphtheria bacilli in their throats." Again, upon the question of isolation they report, "It is very difficult to persuade a man that he should remain at home because he has diphtheria bacilli in his throat, when one is obliged in answer to his inquiry, to admit that there are hundreds of others going freely about the street, although infected like himself."

The high death rate from tuberculosis and pneumonia has brought these two diseases into great prominence as a proper subject for investigation by bacteriologists, and is one of serious moment to public health officials. It is said that one-half of the human race is affected in a mild or severe form, by consumption; that it causes one-seventh of all the deaths, and one-third of the deaths of those who perish between the ages of fifteen and forty-five. On the other hand, Dr. Arthur Reynolds, Commissioner of Health for Chicago, in a valuable paper upon pneumococci,

read before the conference of health officials at Ann Arbor, 1903, gave statistics as follows: "Since the census year 1900, in the City of Chicago, one-eighth of all deaths were claimed for *pneumonia*, one-third more than for consumption, and forty-four per cent. more than for all other contagious or infectious diseases combined; or 6,560 deaths from pneumonia against 4,889 from all others except tuberculosis." Recent statistics are even more startling: At the close of the year 1904 there were in the city of New York alone 28,000 cases of pneumonia, and a mortality in one week of 309.

With the commencing of the new year, a serious outbreak of cerebro-spinal meningitis occurred in New York, resulting in many deaths, principally among the children, and spreading into all parts of the country. The rapidity with which it spread into distant parts, might suffice to throw some doubt upon the theory of communicability; a question by no means settled and opening a new field for investigation. The rapid spread of meningitis naturally calls to our mind the periodical appearance of la grippe in epidemic form; another disease in which it is claimed that characteristic forms of bacteria have been found; consequently a preventable disease.

In the eruptive fevers: scarlet fever, measles, smallpox and several others, we come to a distinct class; those possessing many features entirely different from any thus far described. These diseases are unquestionably communicable, and yet no specific germ or bacteria has been described. Perfect isolation undoubtedly restricts them and perfect disinfection will destroy the virus, while we remain in doubt as to its identity.

In the casual mention of the several forms of communicable diseases it has not been the aim to enter into a technical description, an undertaking interesting in a medical college, but out of place before a society of professional men, but if possible to hold these varied forms of disease vividly out, that we may fully realize the important figure they cut in the lives and happiness of our fellow beings; that we may fully realize the responsibility resting upon us, the conservators of public health, and realizing these things, enter fully into the truth of one of the old axioms of our time-honored profession, viz.: "When we have to do with an art whose aim is the saving of human life, any neglect on our part to make ourselves thoroughly familiar with that art becomes a crime."

Realizing these things to the fullest extent, we have a subject before us far outweighing any other of which our minds may conceive.

The epidemic of smallpox which has existed for a period of over five years, and of which we are constantly reminded by the ever-present yellow placards, has afforded an excellent opportunity to those directly connected with it to study its various forms and phases, and with practical experience compare the history and treatment of past outbreaks with the present.

That smallpox, while exceedingly contagious or communicable, is not a dangerous disease if properly handled, and proper handling is little more than the observance of good, common sense, sanitary measures,—cleanliness, is a statement at which one cannot but be surprised. Still one cannot also but be surprised, upon reading the text-books, at the treatment prescribed; but not surprised at the serious results following such treatment.

Some one remarks: "Smallpox is not what it used to be, it is altogether a different disease." During the last winter a request came from another county for a nurse. One of the young women who had been employed in that capacity here, responded, and returned again after about three months' service with an account of her experience. She said that altogether eleven patients had been cared for at the detention hospital and that eight had succumbed to the disease. In answer to a question as to the treatment followed she said that their bodies were swathed with oiled bandages, they had all the whiskey they could drink through the day, and morphine enough at night to keep the whiskey quiet.

It is not difficult of demonstration that all of these diseases are reproduced by inoculation; that the virus—the bacteria—or the infection must be brought in contact with the living tissues; that they must be deposited within the body. An unbroken cutaneous surface or a perfectly whole mucous membrane is a perfect barrier against them; this condition is perhaps rarely found. If this is taken for granted there would appear to be two modes of preventing infection; one, perfect and complete isolation; the other, rendering all infected matter sterile. Perhaps neither is practical.

The State Board of Health lays down for the guidance of local health officers, rigid rules for disinfecting after communicable diseases. These rules are based upon the theory that disease producing bacteria must be destroyed; a proposition which every health officer knows to be intangible. If a large number of well people, as demonstrated by the Massachusetts society, and as we know from other proofs, are possessed of disease germs, how successful shall we be in an effort to destroy them?

It would seem that nature has placed these microscopic plants, as she has placed plants of visible dimensions, with us for a purpose, and the fulfillment of that purpose, animal life is sometimes endangered. But is it not more than possible, is it not probable, that man in his higher plane of mental development will yet be able to restrain and control the morbid influences which they are capable of producing?

If it is true that the manner in which these agencies produce disease is through the power which they possess of returning organic matter back to its elementary constituents, is it not true that a full knowledge of the chemical changes wrought through their agency should arm us with the power to restrain them? We know that all chemical action upon matter of like consistency with that composing the human body is restrained or accelerated according to the physical surroundings, and that such chemical action may be completely changed. The presence of oxidizing agents may suspend all processes of fermentation or putrification, and completely change the product of such process. What, then, becomes of the toxin? These changes are going on constantly in the living body, and even more rapidly than without; on alcohol to-day, on aldehyde to-morrow, then breaking up into acids, and are cast off.

In the experience afforded by the care of a large number of smallpox patients it has been possible to observe the action of chemical agents, constantly applied, upon the eruption, and consequently upon the totality of symptoms of that disease. It may tax your credibility to hear the statement that the eruption of smallpox may be arrested in the erythematous stage; that neither vesicles nor pustules will develop under the constant application of bi-chloride of mercury—1 to 500—but such is the case. The softening down of the pustule will not occur with a solution much weaker, and the fever of supuration as a consequence.

The exhibition of intestinal antiseptics in diseases of the stomach and bowels need no urging from me.

That an intelligent use of these agents must inevitably follow a complete understanding of the phenomena of disease seems assured, and that the bacteriological laboratory alone will not furnish that intelligence, but that there appears a large field for work in the chemical laboratory to determine chemically the organic changes taking place in the presence of that which we term disease, and determining definitely the changes to be looked for under the use of antiseptic agents.

A. W. HERRICK, Sec'y.

LAPEER COUNTY.

Lapeer County Medical Society held their regular meeting April 12, 1905.

Adam Price, of Almont, read a paper on "Per-nicious Vomiting of Pregnancy."

Abstract:

Cases of this class are fortunately rare. The writer has had four such cases. Case I. Vomiting was so bad that absolutely nothing could be retained in the stomach. Pulse ran 150 to the minute and the temperature reached 103 degrees. Bismuth, oxalate of cerium, morphine by mouth and hypodermically, chloral by rectum, were all tried to no purpose. The writer then proposed cauterizing the uterine neck and if that failed abortion, which was refused, and the patient died. Case II. Was given $\frac{1}{2}$ grain of morphine with $\frac{1}{30}$ grain of strychnine hypodermically four or five times a day, sufficient to control the vomiting. Milk and whiskey were given by rectum. The patient went to full term. A few years later she again became pregnant in a distant city and died as a result of the constant vomiting. Case III. Showed no improvement after all these measures failed. Dilatation of the neck of uterus gave temporary relief. After three such dilatations, the patient aborted. Case IV. Was given much the same line of treatment as was given in the preceding three cases with no improvement. The writer passed one finger in the cervix, then applied carbolic acid introduced well through the internal os, thoroughly cauterizing inside of uterus near neck. Patient improved at once. Dr. Price recommends to begin with the simple measures first and then to proceed to the more severe ones if unsuccessful. Do not resort to cauterization until less dangerous ones have failed. Abortion is the last resort.

John S. Caulkins, of Thorneville, read a paper on "Man's Usefulness."

Abstract:

Is it desirable to live to a good old age or is it not? The question must be looked at from two points of view, from that of the individual and from that of the community. Personally if he is quite hale and well, has money sufficient to supply his wants, has the respect of those who know him best, takes a lively interest in new things, life may be fairly enjoyable to him when he reaches the age where he should have been chloroformed. (Saint Osler.) On the other hand, if he is sick, decrepit, poor, listless, nearing second childhood and conscious of it, life may become a burden to him and he would welcome chloroform as his best friend. Looking at the question from a so-

ciological point of view, the answer is, Has the individual any utility left in him. If he can do something better than a younger man, why not then tolerate him a little longer, but if the capacity for work is over and second childhood comes on, the community will look upon him as an encumbrance. But there is a larger point of view, and that is from the view of the human race. It is desirable that man should live for the benefit of the race. Youth is rash, inconsiderate, passionate and boisterous, while age gives sober self-control, justice and fairness. If we can add a score of years to the average length of life, to the period of human activity, its potential is at least doubled.

H. E. RANDALL, Sec'y.

MASON COUNTY.

The Mason County Medical Society invited the members of the Manistee and Oceana County Medical Societies to unite with them in a meeting at Ludington, April 25, 1905. S. C. Graves, of Grand Rapids, read a paper on "The Early Diagnosis and the Late Complications of Cholelithic and Other Inflammations of the Bile Tract.

Abstract:

I desire to emphasize two features of importance as suggested in my theme. These are: First, that cholelithiasis is a more common ailment than has heretofore been believed, and, second, that early surgical interference of the right sort is the key to the solution of the problem. The writer then takes up the anatomy of this region in detail.

Three conditions must be obtained before gall stones can be formed. These are: First, a disquamation subinflammation. Second, micro-organisms or weak culture, principally the bacillus coli communi, typhoid bacillus and various staphylo and streptococci. Third, stasis.

Jaundice is caused solely by obstruction to the common hepatic duct. This obstruction may be lithic, neoplastic, or inflammatory.

Gall stones can remain quiescent for years, producing absolutely no symptoms in nine out of ten people carrying them. The chief early symptom is "indigestion," variously referred to as "colic," "gastralgia," "spasm," etc. A typical picture of active bile tract disease exhibits, chill, thermal rise, sweating, pain and vomiting. The pain is both local and referred. Naunyn's sign seems quite reliable.

The damage of the bile ducts by the establishment of a temporary, external fistula (cholecystostomy) and the removal of calculi wherever

found, followed by suture or not and by tubulogauze drainage, indicate the principles which underlie successful treatment.

J. A. King, of Manistee, read a paper on "The Bugaboo of Hemorrhage in Ectopic Pregnancy."

Abstract:

Ruptured vital pregnancy calls up in me a mental picture of a patient in a state of profound collapse, pallid, pupils dilated, anxious countenance and fluttering almost imperceptible pulse. These signs of impending death from hemorrhage became years ago so associated in my mind with extra-uterine pregnancy and a ruptured follopian tube, that I have never gotten rid of the nightmare. I can now recall but one case where the signs actually witnessed represented the appalling picture that impressed me so in my student days. The writer feels that ectopic pregnancy is a common mishap, that evidences of severe hemorrhage, (a cold, clammy skin, steady or imperceptible pulse) and a general condition of collapse is oftener absent than present. The writer then reports three cases.

W. C. MARTIN, Sec'y.

MECOSTA COUNTY.

The Mecosta County Medical Society held its regular meeting April 14, 1905. J. O'Hara, of Big Rapids, read a paper on "Antistreptolitic Serum as a Remedial Agent."

Abstract:

He described the method of making the serum and then reports several cases of puerperal fever treated with antistreptolitic serum. The writer's deductions are as follows: First, that every time I have given the serum marked improvement followed; second, that the administration of even large doses frequently repeated were never followed by any toxic effect; third, when used persistently in large doses the serum seems to be decidedly bacteriocidal.

L. S. Griswold, of Big Rapids, read a paper on "Pneumonia."

Abstract:

'Pneumonia to-day is an unsolved terror. It is one of the greatest problems that the twentieth century scientist has to solve. "Facts are few, theories are legion." The mortality of pneumonia is greater than that from tuberculosis. As we have no specific for pneumonia, the prevention of this disease should be the chief aim of every physician.

A. A. SPOOR, Sec'y.

MONROE COUNTY.

The Monroe County Medical Society held their regular meeting at Monroe, April 20, 1905. Eugene Smith, of Detroit, read a paper on "Mastoiditis."

Abstract:

I feel it incumbent upon me to call your attention to the fact that all cases of acute mastoid trouble are caused by acute inflammation of the middle ear. There are a few cases of primary mastoiditis on record, but not enough to cause one to modify the general statement.

The great variety of circumstances under which an acute inflammation of the middle ear develops, should keep one alert to its possibilities, as in the following: measles and scarlet fever, diphtheria, grippe or epidemic influenza, and typhoid fever and tuberculosis.

To-day it is a well known fact that micro-organisms play a very important part in the etiology of middle ear and mastoid affections, and while we most frequently have a mixed character in the infection, it is possible to have only one variety.

With regard to the symptoms of middle ear inflammation, earache is an important symptom and should be carefully investigated. It is usually the first symptom to appear, and in children in too many homes is thought to be one of the necessary ills of childhood. The pain may be a mere dull ache or extremely severe. In infants, rolling of the head or putting the hand towards the ear will often indicate the seat of the trouble. Not infrequently after a child has suffered for two or three days, a discharge of pus from the ear reveals the cause of the several days' pain. It has been satisfactorily demonstrated that all acute inflammations of the drum cavity extend more or less to the mastoid process. The extension may be superficial, giving us a mastoid periostitis. In a majority of cases, however, it is only a burrowing of muco-purulent secretion from the attic or neighboring cavities beneath the periosteum over the mastoid. An incision or spontaneous perforation of the swelling is often followed by recovery. This happy termination does not happen so frequently in the cases of mastoid cell complications.

The symptoms of mastoiditis vary to such a degree that many times life is endangered by awaiting a grouping of the well known signs, many of which may be wanting or masked. Let me say in explanation of the term "masked," that important symptoms may be hidden by the use of anodynes and antipyretics, hence they should be given cautiously, if at all. The same thing may

be said about blisters and iodine. The most prominent symptom is pain in the mastoid region which radiates in all directions. Pain is increased on percussion or pressure on the bone, particularly over the antrum or tip. Pain, however, is not a constant symptom, for sometimes pus forms in the mastoid cells with little or no pain. We frequently find increase of surface temperature of the affected side; bulging of the posterior and upper parts of the drum, with bulging or drooping of the adjacent soft parts of the meatus. The temperature varies and may range from 90° to 105° F. Generally it is higher in children than in adults. A comparatively low temperature, however, does not indicate necessarily that the case is not grave, for many severe cases occur in adults wherein the temperature is less than 100° F.

One of the most valuable indications of mastoid inflammation is tenderness on pressure over the mastoid region, especially so at the tip and over the antrum. As the cells in the tip are the ones most commonly involved in the acute variety, we most frequently find tenderness in this region. One must not lose sight of the fact that tenderness over the mastoid is often caused by furuncular inflammation of the meatus. Careful examination and history of the case will determine its character. The significance of tenderness will be more or less obliterated by the application of tincture of iodine or blisters behind the ear, as is too frequently the case. In the acute variety of mastoiditis we are more apt to have oedema of the mastoid region than in the chronic form. Prolapses of the upper and posterior wall of the meatus is looked upon by some as being positive proof of the implication of the mastoid, but it is not a constant symptom and its absence is not significant.

If the drum has been incised or has ulcerated, and a profuse creamy discharge continues for ten days or two weeks, we may be assured that the mastoid cells are affected, for such copious discharge must necessarily come from a much larger space than the tympanic cavity. When associated with fever and pain on pressure, operation should be done. Occasionally the discharge finds an exit from the tip of the mastoid, either through a congenital defect in the bone or pathological softening, into the tissues of the neck, burrowing in the deep fascia and giving rise to large abscesses of the lateral cervical region. The diagnosis of this condition may be somewhat difficult. A hard, rather painful swelling in the retro-maxillary fossa often of perfectly normal color may be the only symptom at the beginning, the mastoid being unchanged and showing slight, if

any, sensitiveness on pressure, though percussion nearly always shows it.

Caries of the temporal bone occurs more frequently during acute purulent inflammation of the middle ear than in chronic suppurative cases. Especially so in scarlet fever, tuberculosis, syphilitic and typhoid conditions.

The most extensive destructions probably exist in the scarlet fever cases.

Caries of the ossicles is common.

Pain is the most prominent symptom of caries, though in tuberculous or scrofulous persons it may be entirely wanting. The cause of the pain may be due to implication of the periosteum or retention of pus in the cells, and it often disappears on escape of the pus.

Paresis and paralysis of the facial nerve developing in the course of suppuration of the middle ear is not infrequent.

Local treatment of carious processes is seldom of much benefit, operative treatment, however, affords in a majority of cases most elegant results.

Owing to the proximity of the brain and its membranes, marked signs may occur of cerebral irritation and the case may be taken for a meningitis, or we may have stupor and muscular spasms, etc. Prognosis usually is good.

As acute mastoiditis is almost invariably incident to an acute inflammation of the middle ear, the treatment should begin with the latter, i. e., presuming the case is seen before the mastoid is seriously involved. The trouble being of a febrile character, it seems almost unnecessary to state that complete rest and a strict regulation of the diet should be enforced. An early incision, not a mere paracentesis, in the drum membrane should be made in order to establish free drainage; a small wick of gauze should be placed in the meatus, the distal end of which is placed in contact with the opening in the drum with a view to facilitate drainage. This wick may be replaced two or three times daily, and the meatus slightly douched or wiped out with a cotton pointed probe and almost any antiseptic lotion. Should marked improvement not begin within two or three days, and pain in the head with tenderness of the mastoid region continue in spite of an apparent free drainage, opening of the mastoid will probably be necessary. The abscesses due to periostitis, which most frequently appear in children behind the upper portion of the auricles, should be incised and careful examination made by means of a probe to find if caries or a sinus exists; if so, the cell should be opened by enlarging the sinus. In making the mastoid operation in children, the age of the child and the

consequent condition of the mastoid structure should be taken into consideration.

The fact that mastoid abscess in the acute form usually affects the large cells in the middle and the tip, our operation is generally directed to the opening of this portion of the mastoid, and differs from the operation called for in the chronic forms of suppuration of the ear, where the antrum, cells and middle ear should be generally thrown into one cavity. It has been very aptly stated that a person with a chronic otorrhoea is in a condition akin to a man with a charge of dynamite in his skull, a sudden jar—a severe cold—is liable to cause an explosion.

Probably a majority of brain abscesses are of otitic origin and the probability of brain troubles should never be lost sight of in chronic suppuration of the ear.

In mastoid abscesses occurring in chronic cases, the absence of oedema, redness and increase of temperature as a rule cuts no figure. Persistent pain or severe headache which develops in or near an ear which has long been discharging will many times influence our decision to operate.

The treatment of all cases of ear disease in their incipency cannot be too strongly advised.

The operation should be performed as early as possible after the diagnosis has been made. Nothing can be gained by delay.

GEO. F. HEATH, Sec'y.

SHIAWASSEE COUNTY.

The Shiawassee County Medical Society held its regular meeting April 4, 1905. W. A. Harper read a paper on "The Value of Blood Examinations."

Abstract:

It is not my intention in writing this paper to reiterate any of the rules nor to discuss the technique of making blood examinations, but simply to report a few instances where a blood examination has either proven or corrected my diagnosis and also to show why it was necessary in some instances for me to change my opinion.

Case 1—Roy B., age 13; had been complaining for some few days of being tired and of having a continual dull headache. On November 29th his mother noticed that he had some fever; she gave him home treatment during the next couple of days without any improvement. On December 1st I was called, and found a boy of ordinary size who was complaining of moderate headache, a bad feeling in the stomach and a slight diarrhea. The boy was quite resigned and not inclined to

talk more than to answer questions in the very shortest manner possible. Unsolicited he made no complaints even to his mother.

Examination: Fever, 102° F.; pulse, 110; tongue red but not coated; mouth and lips dry; cheeks flushed, chest negative, abdomen slightly tender on right side, where succussion sounds could easily be produced.

I told the parents that there was a possibility of the disease being typhoid, and in fact I thought my suspicions were quite well founded. The next day I made a blood examination which resulted as follows:

Reds	4,000,000	
Whites	13,000	213,800
Hemoglobin	80%	
Neutrophiles	80%	

The results were somewhat of a surprise to me. I expected to find a leucopenia with a neutrophilia, but on the contrary there was a leucocytosis with a neutrophilia. The typhoid bacillus being a germ possessed of negative chemotaxis it was necessary for me to give up my typhoid theory and to substitute something else that conformed with the facts which I did and called the condition one of intestinal autotoxemia, which proved to be correct. When convalescence was established I took the hemoglobin percentage and found it to be 60 per cent., but did not make a farther examination.

In this case a changed diagnosis did not alter the treatment materially.

Case 2.—Mrs. M. consulted me in regard to her daughter who was 17 years of age, and whose health had been failing for the past six months. Menses had ceased four months previous; she had a muddy white complexion, poor appetite, palpitation of the heart on the slightest exertion and a slight cough. She had been told that tuberculosis was the cause of her failing health, and had about given up hopes of her ever being any better.

A careful physical examination revealed a slightly musical heart, but nothing else.

The blood examination showed:

Reds	3,500,000	
Whites	7,800	
Hemoglobin	30%	

This confirmed my diagnosis of chlorosis and excluded tuberculosis which shows a high hemoglobin percentage and a leucopenia with a pathological neutrophelia.

She was immediately put upon Armour's ovarian extract, grs. v., t. i. d., and reduced iron with *bis. sub. nit*; increasing the iron until the

stools were no longer blackened, this established the dose of iron which was maintained until the end of treatment.

Two months' treatment re-established the physiological functions and relieved the symptoms, and the hemoglobin percentage had raised to 65 per cent., and at the end of four months the blood proved to be normal.

Case 3.—Mrs. R., age 50, consulted me early in the fall on account of a growth, which she had noticed a few days previous in the left upper quadrant of the abdomen. Her strength had been failing all summer, but she had not given her condition serious thought until about the 1st of September, when she was taken with a severe hemorrhage from the stomach.

She had been troubled for some time with diarrhœa, and there was slight oedema of the extremities; the complexion sallow and the features sunken, the tongue was flabby, but not coated and she had had frequent attacks of epistaxis.

Examination of the special organs disclosed nothing of importance until the abdomen was reached, where a growth extending from under the left costal arch reaching half way to the umbilicus could be easily outlined, and there was some tenderness over the descending colon.

The diagnosis was doubtful until the blood examination was made, which showed the following, viz.:

Reds	3,000,000	
Whites	450,000	
Hemoglobin	40%	
Myelocytes	30%	

This condition of affairs is only found in spleno medullary leukemia. The myelocytes alone were diagnostic, being found normally only in very few numbers, but constantly and in large numbers in the above named disease.

The treatment was Fowler's sol. in full doses, Fl. Ext. Golden Seal; regulation of the emunctories and nutritious diet.

Two months' treatment showed decided improvement; in four months the tumor was gone and the symptoms relieved, blood examination normal.

At this time the treatment was discontinued; six weeks later the patient noticed a return of the difficulties. Fowler's sol. was again prescribed, and at the present time she is well, but still continues to take the arsenic, which she has been advised to do for at least one year, at the end of which time if nothing unexpected happens it will be discontinued. I am very anxious to know what the future will bring forth in this case.

Case 4.—This is not one calling for a blood examination, but one where a complete diagnosis could have been made without the aid of a microscope.

M. B., age 40, married 12 years, consulted me in regard to his inability to raise a family; his wife is a well formed woman, slightly larger than the average and her cheeks glow with the bloom of health.

The husband had always assumed that he was the disqualified party, and in consequence of his convictions he had tried to rectify matters by taking treatment of all descriptions, both at home and in a sanitarium.

By careful interrogations I satisfied myself that the procreative functions were successfully and normally carried out as often as common.

The patient was instructed to bring a condom to me containing all the semen ejaculated at one time as soon as possible after intercourse, which he did.

The examination revealed large numbers of living spermatozoa quantity of semen 7cc. I at once told the patient that he had been treating the wrong person and that the fault must be his wife's and not his.

The next day I examined her and found a double cysto salpinx.

The peculiar things about it were that the man had been taking the blame all upon himself, when, in face, the whole trouble was with his wife; and that a woman could be carrying a pair of cystic tubes around in her pelvic cavity and still never suffer the slightest inconvenience or show any deterioration of health.

I have briefly reported four cases where microscopical examinations have given me a great deal of satisfaction, and now I will give a few of the results.

In the first case the patient received no benefit from the corrected diagnosis, because he would have recovered any way, but it made the prognosis much more favorable and assurance of prompt recovery relieved the parents of a considerable unnecessary worry.

In the second case it confirmed a probable diagnosis which was contrary to what the parents had been told, and made me able to give a favorable prognosis.

In the third case I was able to make a positive diagnosis and institute proper treatment, whereas before I was absolutely at sea, and it is my opinion that if I had not recognized the difficulty early and started her on the right road she would have been dead before now.

In the fourth case the husband at least was satisfied, and I could explain the condition of af-

fairs to them without using the prepositions "if" and "probably" quite as often as is necessary where one is uncertain.

The more ulterior results have been to establish with the people a better faith in the medical profession, and for me to strive more diligently for correct diagnosis, and I believe that a great many times the physician would be able to solve the misty problems of diagnosis much easier and with much more certainty if he would call to his assistance more frequently the microscope, especially in making blood examinations.

P. S. WILLSON, Sec'y.

SCHOOLCRAFT COUNTY.

The Schoolcraft County Medical Society held its regular meeting in Manistique on April 26, 1905.

The following resolutions were unanimously adopted:

Whereas, Under the present State laws an action of damages for malpractice against a physician or surgeon may be brought at any time within three years from date of service, and

Whereas, After a lapse of more than one year much valuable evidence may not be available, and important facts bearing on the case at issue may not be at hand, and

Whereas, One year is always a sufficient time to bring out the results of professional inefficiency or negligence; therefore, be it

Resolved, That the Schoolcraft County Medical Society, in session assembled, do hereby most heartily endorse and approve the bill now pending in the state legislature to reduce the time in which such action may be commenced to one year from date of cause for such action, and further

Resolved, That a copy of these resolutions be immediately forwarded to Hon. Jas. E. Brockway, House of Representatives, Lansing, and

Resolved, That the Representatives and Senator from this district be requested to use all honorable means to secure the passage of said bill.

J. M. SATTLER, Pres.

G. M. LIVINGSTON, Sec'y.

WAYNE COUNTY.

The regular meeting of the Wayne County Medical Society was held May 15, 1905. The following officers were elected: President, A. E. Carrier; Vice-President, C. D. Aaron; Secretary-Treasurer, W. J. Stapleton, Jr.; Board of Directors, H. O. Walker, G. W. Wagner, W. F. Metcalf, H. W.

Longyear, F. B. Tibbals. The following members were elected as a Board of Directors for the Defense League of the Wayne County Medical Society: J. Flintermann, F. W. Mann, F. B. Tibbals, H. W. Longyear, W. F. Metcalf, Guy L. Kiefer.

W. F. STAPLETON, JR., Sec'y.

Medical News.

On the evening of May 2, 1905, over 500 physicians sat down to a farewell banquet given in the ball room of the Waldorf-Astoria. The guest of the evening was William Osler. The toastmaster of the evening was James Tyson, of Philadelphia. F. J. Shepherd, of Montreal, spoke on "Osler as a Student and Teacher." J. C. Wilson, of Philadelphia, on "Osler as a Teacher and Clinician." William H. Welch, on "Osler as a Teacher and Consultant." Abram Jacobi, of New York City, on "Osler as an Author and Physician," and S. Weir Mitchell, of Philadelphia, presented "Osler with a Translation of Cicero's Essay on Old Age."

The Interurban Clinical Club was organized at Johns Hopkins Hospital, Baltimore, April 28, 1905, by the following six representations from each of four cities—Baltimore, Philadelphia, New York and Boston—who responded to an invitation extended to them by Osler: Llewellys F. Barker, W. S. Thayer, Thomas B. Fletcher, Thomas McCrae, Charles P. Emerson, and R. I. Cole, of Baltimore; Alfred Stengel, David L. Edsall, Joseph L. Sailer, David Riesman, A. O. J. Kelly, and Warfield T. Longcope, of Philadelphia; Walter B. James, Samuel W. Lambert, Charles N. B. Camac, Theodore C. Janeway, Lewis A. Conner, and Frank S. Meara, of New York; and Richard C. Cabot, Elliott P. Joslin, Joseph H. Pratt, Frederick T. Lord, Edwin A. Locke and Wilder Tileston, of Boston. William Osler, the father of the club, was elected an honorary member. The objects of the club are to stimulate the study of internal medicine, to promote the scientific investigation of disease, to improve the methods of work and teaching of the members and to disseminate a knowledge of the methods of work used in the different cities. Meetings will be held twice a year in the different cities in rotation, at which there will be demonstrations and discussions, but few formal papers. The next meeting will be held in New York, November 10 and 11, 1905. The following

officers were elected: Richard C. Cabot, President; Thomas McCrae, Secretary-Treasurer; Thomas B. Fletcher, A. O. J. Kelly, Lewis A. Conner and Elliott P. Joslin, Councilors. The club was entertained at dinner April 28, 1905, by William Osler.

Because of difficulty with the Medical Director, Dr. James W. Markoe, the entire staff of the N. Y. Lying-in Hospital resigned. Seven thousand confinements occur yearly at this institution.

In spite of persistent, laborious investigation by many experts and cancer laboratories, the progress towards a final solution is mainly, if not exclusively, negative.

The Bellevue Hospital is to cost ten millions of dollars and consume five years in building.

Last year New York City had one hundred and twenty-three dispensaries open a part or all the year. The property of eighty-one of these was \$1,175,436; their receipts about one hundred and twenty-five thousand dollars, and expenditures one hundred and five thousand. These institutions are licensed and regulated by the State Board of Charities—a system which has operated during the past five years. The rules of board as to the conduct of the dispensaries are fairly well observed, so that the doors are well guarded in the large majority of cases, partially in most of the rest, but few being wholly unguarded.

From January 1st, 1905, to April 5th, there were 386 deaths from cerebro-spinal meningitis in Greater New York.

Dr. Gould thinks that an oblique astigmatic axis may cause lateral curvature, resulting from an effort to secure distinct vision by tilting of the head. Query: will spinal curvature result in a healthy person from such position of the head? With the large number of cases of oblique astigmatic axis, cases of spinal curvature should be very common were his contention correct. That a spinal curvature and oblique astigmatic axis may co-exist all may admit. Nor is it impossible that the two may stand in causative relationship. Who has seen a straight spine become curved by the tilting of the head assumed to obtain clearer vision? Why not the lateral spinal curva-

ture cause the head tilting and it the oblique astigmatic axis? We may admit either view if satisfactory proof be adduced.

At the eighth annual meeting of the American Gastro-Enterological Association, held at the Academy of Medicine, New York City, April 24 and 25, 1905, the following officers were elected for the ensuing year: President, H. W. Bettmann, of Cincinnati; First Vice-President, S. W. Lam-oert, of New York City; Second Vice-President, John P. Sawyer, of Cleveland; Secretary-Treasurer, Charles D. Aaron, of Detroit. Councilors, William G. Morgan, of Washington; A. L. Benedict, of Buffalo, and J. Kaufmann, of New York.

The eighth general conference of health officials in Michigan will be held under the auspices of the Michigan State Board of Health, in the new medical building of the university in Ann Arbor, Thursday and Friday, June 1 and 2, 1905.

The objects of the conference are: The presentation of facts and the general comparison of views by the health officers and other delegates of local boards of health, among themselves, with the members of the State Board of Health and with those in charge of the state laboratory of hygiene, and especially with reference to the duties of supervisors, and other presidents of local boards of health. Health officers, and other officials, relative to the restriction of the dangerous communicable diseases and relative to other subjects bearing upon the public health service of the state.

This will not be a medical conference, it is for all health officers and delegates, professional and non-professional. It is expected to have the most advanced scientific presentation of facts in important branches of sanitary science; and it is hoped that public health administration will be dealt with by health officers and others who have had experience, or have given those subjects much thought. Such discussions are not restricted except by the shortness of time at the disposal of the conference. Every delegate is expected to contribute his part for the general good of the people of Michigan.

This conference of health officials is held for the benefit of every locality in Michigan. It is hoped that many localities may have delegates there, thus securing the most direct benefits. Every state and local officer there will probably learn much that will enable him to do better service in guarding the public health. It is believed

that any city or village can legally and properly send a delegate. This board has no doubt on this point or it would not have called the conference. It is hoped also that many townships not too distant and even distant ones, if specially exposed to the introduction and spread of disease, may each send a delegate.

The papers and discussions will be of sufficient practical importance to the delegates, in their future work for their several localities, to well repay the expense incurred by their localities in sending them to this conference.

Prominent sanitarians from outside the state are expected to be present, and to aid toward the success of the conference.

Your board of health is urgently solicited to send at least one delegate to this conference.

A program will be issued later.

By direction of the State Board of Health.

Very respectfully,

FRANK W. SHUMWAY, M. D., Sec'y.

The Secretary of War has approved the recommendation of the Surgeon General for the erection of a new general army hospital nearly opposite the Battle National Cemetery. The property contains 43 acres, and cost about \$93,000. The limit of cost of the hospital as fixed by Congress was \$300,000.

The sixth annual meeting of the American Roentgen Ray Society will be held at Baltimore, September 28-30, 1905. The paper of the first day will deal with X-ray diagnosis, and those of the second and third days, therapeutics. Russell H. Biggs, of Pittsburg, is Secretary.

Members of the Clinton, Shiawassee, Genesee and Livingston County Medical Societies held a joint meeting at Durand, May 11, 1905, and formed the Sixth Councilor District Medical Society. C. B. Burr of Flint was chosen president, and P. S. Willson of Owosso secretary. Several papers were read, including one "On the Work of the State Board of Registration in Medicine," by W. H. Sawyer of Hillsdale, which will appear in the July, 1905, issue of this JOURNAL. Preceding the reading of these papers a reception and informal luncheon was served by the Durand physicians to the visiting doctors. Following the paper a dinner was served, A. M. Hume of Owosso acting as toastmaster. All present had a most enjoyable time.

Program of Conference of Health Officials of Michigan (Ann Arbor)—

FIRST SESSION.—Thursday, June 1, at 2:00 P. M. (Standard Time).

1. A Statement of the Objects of the Conference, by Victor C. Vaughan, M. D., President of State Board of Health.

2. Municipal Water Supplies, by Gardner S. Williams, C. E., Department of Engineering, University of Michigan.

3. The Status of Typhoid Fever at Escanaba, by Oscar C. Breitenbach, M. D., Health Officer of Escanaba.

4. Report on the Sanitary Analyses of Drinking Water made in the Hygienic Laboratory of the University of Michigan from January 1, 1904, to June 1, 1905, by Prof. John F. Eastwood, Hygienic Laboratory.

5. Report on the year's work in the Pasteur Institute, University of Michigan, by Thomas B. Cooley, M. D., Director of the Institute.

6. Disinfection with Formaldehyde Saturated with Potassium Permanganate, by James G. Cummings, M. D., Pasteur Institute.

SECOND SESSION.—Thursday, June 1, at 8:00 P. M. (Standard Time.)

1. Modern Sanitation, by Malcolm C. Sinclair, M. D., Member of State Board of Health.

2. The Benefits of a State Sanatorium for Tuberculosis, by Angus McLean, M. D., Member of State Board of Health.

3. Organized Effort in Restricting Tuberculosis, by Thomas M. Koon, M. D., Health Officer of Grand Rapids.

4. General Discussion on Tuberculosis, opened by Frank W. Shumway, M. D., Secretary of State Board of Health.

THIRD SESSION.—Friday, June 2, at 10:00 A. M. (Standard Time.)

1. The Heating and Ventilation of Residences, by John R. Allen, C. E., Engineering Department, University of Michigan.

2. Restriction of Smallpox, by Thomas B. Cooley, M. D., Pasteur Institute.

3. The Milk Problem, by Guy L. Kiefer, M. D., Health Officer of Detroit.

4. Discussion of the Milk Problem, by Prof. Charles E. Marshall, Agricultural College.

FOURTH SESSION.—Friday, June 2, at 2:00 P. M. (Standard Time.)

1. Street Flushing the most Rational Means of Abating the Dust Nuisance, by A. H. Côté, M. D., Health Officer of Port Huron.

2. The Malarial Parasites of Birds, by F. G. Novy, M. D., Department of Hygiene, University of Michigan.

3. General Discussion on the Powers and Duties of Health Officers.

4. Miscellaneous business.

5. Closing of the Conference.

The Northern Tri-State Medical Association will hold its 32nd annual meeting June 15, 1905, at Fort Wayne, Ind. The Fort Wayne Medical Society has made arrangements to entertain all the visiting physicians royally.

GEORGE W. SPOHN, Pres., Elkhart, Ind.

ELSE T. MORDEN, Secy.,
Adrian, Mich.

William M. Edwards, who has been for many years Medical Superintendent of the Michigan Asylum for the Insane at Kalamazoo, died recently at the University Hospital at Ann Arbor. Dr. Edwards was born near Peru, Indiana. He graduated from the Medical Department at Ann Arbor in 1884. He was a regular attendant at the state society meetings. His absence will be sadly missed by all who knew him.

E. K. Herdman was re-elected City Physician of Ann Arbor.

V. C. Vaughan, Ann Arbor, has been elected Vice-President of the American Society of Tropical Medicine.

The County Auditors of Detroit have appointed Drs. E. B. Forbes and I. L. Polozker County Physicians of that city for the year 1905.

Miscellaneous.

CHANGE IN MEMBERSHIP

(April 15th to May 15th.)

NEW MEMBERS.

T. P. Camelon, Detroit, Mich.
J. D. Campbell, Hopkins, Mich.
L. R. Cobb, Belleville, Mich.
J. H. Crosby, Otsego, Mich.
E. P. Edwards, Grand Rapids, Mich.
J. P. Ferguson, Middleville, Mich.
C. E. McCallum, Midland, Mich.
W. H. Matchett, Hancock, Mich.
C. S. Oakman, Detroit, Mich.
S. B. Rolison, Hesperia, Mich.
H. Post, Belleville, Mich.
C. M. Stuck, Plainwell, Mich.
C. G. Suylandt, Gladwin, Mich.
E. R. Swift, Coleman, Mich.
E. G. Wilson, Detroit, Mich.

CHANGE OF ADDRESS.

F. Huntley, Manton, Mich.
A. T. McLennan, Battle Creek, Mich.
E. A. Planck, Union, Mich.
T. H. Prust, Peterboro, Ont.

DIED.

W. M. Edwards, Kalamazoo, Mich.

BOOKS RECEIVED.

INTERNATIONAL CLINICS. Vol. I, Fifteenth Series. J. B. Lippincott Co., 1905.

A TREATISE ON ACUTE CONTAGIOUS DISEASES. By William M. Welch, M. D., and Jay F. Schamberg. A. B., M. D. Lea Brothers & Co., 1905.

TRANS. OF THE COLLEGE OF PHYSICIANS. Third Series. Vol. XXVI. 1904.

PROGRAM

OF THE

40th Annual Meeting

OF THE

Michigan State Medical :: Society ::



At the New Arlington Hotel,
Petoskey, Mich.

Wednesday, Thursday and Friday,
June 28, 29 and 30, 1905.

THE COUNCIL

THE NEW ARLINGTON.

Chairman—LEARTUS CONNOR, Detroit.

Secretary—W. H. HAUGHEY, Battle Creek.

*Tuesday, June 27th, 7 o'clock P. M.**Wednesday, June 28th, 2 o'clock P. M.**Thursday, June 29th, 2 o'clock P. M.*

Organization and Election of Officers.

FIRST DAY, WEDNESDAY, JUNE 28th.

8:30 A. M.

1. Call to order by the President.
2. Roll Call.
3. Reading of Minutes of the last Annual Meeting.
4. Report of the Council.
* LEARTUS CONNOR, Detroit, Chairman.
5. Report of Committee on Legislation and Public Policy.
W. H. SAWYER, Hillsdale, Chairman.
6. Report of National Legislative Council, A. M. A.
EMIL AMBERG, Detroit, Michigan Member.
7. Miscellaneous Business.
 - a) Appointment of Committee on Nominations to nominate:
1st, 2d, 3d and 4th Vice-Pres.
2 Representatives in House of Delegates,
A. M. A., for 2 years

HOUSE OF DELEGATES

THE NEW ARLINGTON.

President—D. B. HARISON, Sault Ste. Marie.

General Secretary—A. P. BIDDLE, Detroit.

BY-LAWS—CHAPTER IV, Section 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate and one alternate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate and one alternate.

4 Councillors for 6 years.

(4th, 5th, 7th and 10th Councilor Districts.)

To fix Place of Meeting for 1906.

b) Appointment of other Working Committees.

c) Amendment to Constitution.

An amendment to Article V of the Constitution relative to the House of Delegates, which now reads: "The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the Component County Societies, and (2) *ex-officio*, the officers of the Society as defined in this Constitution," by adding after the word "Constitution," "without power to vote." (See Constitution, Art. XIII. Amendments.)

d) Proposed Amendment to By-Laws.

To amend Chapter XIII, Sec. 11, which reads:

SEC. 11. At the first meeting after JANUARY 1ST, due notice having been given, each County Society shall elect annually a delegate or delegates to represent it in the House of Delegates of this Society in the proportion of one delegate to each FIFTY members or major fraction thereof (see By-Laws, Chapter IV, Sec. 1). The Secretary of the County Society shall immediately send the list of its delegates to the Secretary of this Society.

To read:

At the Annual Meeting in the Fall or at the first meeting after January 1st, due notice having been given, each County Society shall elect annually a delegate and an alternate or delegates and alternates to represent it in the House of Delegates of this Society in the proportion of one delegate and one alternate to each fifty members or major fraction thereof. (See By-Laws, Chapter IV, Sec. 1.) The Secretary of the County Society shall immediately send the list of its delegates and alternates to the General Secretary of this Society.

Adjournment to General Meeting.

SECOND DAY, THURSDAY, JUNE 29th.

9 A. M.

1. Reading of Minutes of Previous Meeting.
2. Unfinished Business.
 - a) Amendment to By-Laws, Chap. XIII, Section 11.

(See *d* of previous meeting.)

3. Report of Committee to petition the Legislature for an appropriation for the establishment of a properly equipped Sanitarium for the Treatment of the Early Stages of Tuberculosis.

HENRY J. HARTZ, Detroit, Chairman.

4. Report of Committee to encourage the Systematic Examination of Eyes and Ears of School Children throughout the State.

W. R. PARKER, Detroit, Chairman.

5. Miscellaneous Business.

a) Report of Committee on Nominations.

Adjournment to General Meeting.

THIRD DAY, FRIDAY, JUNE 30th.

9 A. M.

1. Reading of Minutes of Previous Meeting.
2. Unfinished Business.
3. Report of Committee on Vital Statistics.
4. Miscellaneous Business.

H. B. BAKER, Lansing, Chairman.

a) Amendment to Constitution.

To amend Art. VIII, Sec. 1, which reads:

"The officers of this Society shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and Twelve Councillors," by inserting the word "General" before "Secretary" and adding, an "Assistant Secretary," to read a "General Secretary, an Assistant Secretary."

(See Art. XIII. Amendments.)

Adjournment to General Meeting.

GENERAL MEETING

THE NEW ARLINGTON.

President—D. B. HARISON, Sault Ste. Marie.

General Secretary—A. P. BIDDLE, Detroit.

FIRST DAY, WEDNESDAY, JUNE 28th.

10:30 A. M.

1. Call to order.
2. Prayer
3. Address of Welcome
4. Report of Committee on Arrangements.

REV. F. R. GRODOLPHIN.

HON. GEO. E. REYCRAFT, Mayor.

J. J. REYCRAFT, Chairman.

5. Report from the House of Delegates.
A. P. BIDDLE, Detroit, General Secretary.
6. Report of Michigan Member of Committee on Transportation, A. M. A.
F. W. ROBBINS, Detroit, Chairman.
7. Address of the President.
D. B. HARISON, Sault Ste. Marie.
"The Present Status of the Medical Profession in Michigan."
8. Miscellaneous Business.
a) Nominations for President.

Adjournment.

8 P. M.

Scientific Exhibit.

Lantern Slide Demonstrations on "Tissue-bits in the Stomach-washing and Their Aid to Diagnosis."

A. S. WARTHIN and D. M. COWIE, Ann Arbor.

X-ray Slides of "Diseases of the Gastro-Intestinal Tract."

P. M. HICKEY, Detroit.

9:30 P. M.

Entertainment by the Emmet County Medical Society.

SECOND DAY, THURSDAY, JUNE 29th.

10:30 A. M.

1. Unfinished Business.
2. Report of Committee to secure data regarding the Prevalence of Venereal Diseases in Michigan.
A. E. CARRIER, Detroit, Chairman.
3. Oration on Surgery

F. B. WALKER, Detroit.

"Surgery and Human Welfare."

Introductory. Historical. Status of Medicine and Surgery in Remote Past. Comparison. Development of Surgery. Effect on Human Welfare. Comparison. Prospect.

4. Oration on General Medicine
COLLINS H. JOHNSTON, Grand Rapids.
"The Administrative Control of Tuberculosis."

5. Miscellaneous Business.

Adjournment.

6 P. M.

Banquet at the New Arlington.

THIRD DAY, FRIDAY, JUNE 30th.

10:30 A. M.

1. Unfinished Business.
2. Report from the House of Delegates.
A. P. BIDDLE, Detroit, General Secretary.
3. Oration on Obstetrics and Gynecology.
RICHARD R. SMITH, Grand Rapids.
"Is Gynecology to Remain a Separate Specialty?"
4. Miscellaneous Business.

At 12 o'clock the Committee on Nominations will announce the result of the ballot for President.

Introduction of President Elect.

Adjournment.

SECTION ON GENERAL MEDICINE

THE NEW ARLINGTON.

The Secretary of the Section will collect all papers as soon as read.

Members will please hand in their discussions in writing to the Secretary of the Section before leaving.

Chairman—JOHN J. REYCRAFT, Petoskey.

Secretary—H. B. BRITTON, Ypsilanti.

FIRST DAY, WEDNESDAY, JUNE 28th.

1:30 P. M.

1. Why Surgical Fixation of Movable Kidney Will Not Relieve Dyspeptic and Nervous Symptoms.

CHAS. D. AARON, Detroit.

Reports of surgeons maintaining that movable kidney should be classed as a medical disease and not to be operated upon. Medical treatment as a means for restoring prolapsed kidney to its normal position not generally known to physicians. Medical treatment the only rational method, excepting in cases of Dietl's crisis, proven by results. Why surgical intervention does not relieve dyspeptic and nervous symptoms. Method of successful treatment.

2. Skiagraphy of the Chest. Illustrated.
P. M. HICKEY, Detroit.

3. Ascending Neuritis.

WM. J. HERDMAN, Ann Arbor.

Neuritis is a very common disorder. Its presence oftentimes not recognized, the symptoms being attributed to other less definite forms of disease, as neuralgia, rheumatism, lumbago, etc.

The treatment for this reason is inexact and often inefficient. An ascending course to a neuritis unusual. Yet it may ascend and involve a plexus higher up or even invade the cord or brain. The grave consequences of such extension. Several cases illustrating neuritis of this form.

4. Diseases Communicated to Man from the Lower Animals.

WM. F. BREakey, Ann Arbor.

1. Systemic diseases resulting from infection, immediate or mediate: *a.* (eg., diphtheria, equina, anthrax, rabies, variola). *b.* Infection through intermediary carriers or hosts, such as flies, mosquitoes (eg., malaria, yellow fever, plague, elephantiasis).
2. Parasitic Diseases (*a.*) resulting from ingestion of animal food (eg., some of the entozoa, echinococcus, trichina, cysticerci, tuberculosis).
(*b.*) More especially of the skin (eg., acarus scabiei or sarcoptes, tinea trichophytina, and the various communicable dermatoses).

Need for better prophylaxis, and dissemination of information through channels of preventive medicine. Determination of diagnosis. Treatment.

5. Venereal Prophylaxis.

ALBERT E. CARRIER, Detroit.

Is prophylaxis of venereal diseases demanded?
Are legal restrictions of value?
Should venereal diseases be reported?
Should a physical examination be made of those about to marry?

Education of the masses in order that they may avoid innocent contraction of venereal diseases.

What means shall be adopted to instruct the laity regarding the dangers to sufferers who contract venereal diseases?

6. Some Difficulties in the Diagnosis of Syphilis.

JAMES F. BREakey, Ann Arbor.

The wide spread distribution of the disease and its extreme prevalence in all communities and classes. The varying degrees of its intensity or malignancy in different individuals, or, the individual factor. Coincidental conditions and diseases in syphilitics of various stages. Variations in classic symptoms in: Primary stage—Multiple lesions, mixed infections, extragenital lesions. Secondary stage—Variations in eruptions, delayed eruptions, influence of treatment, coincident exanthemata and skin diseases. Tertiary stage—Gummata and bone necrosis, joint disease, syphilis of the nervous system. Hereditary—Degrees of manifestations dependent upon apparent attenuation of the infection and individual factor in parents, influence of ante-natal treatment.

7. Dispensing Physicians.

H. B. GARNER, Traverse City.

Medicine and pharmacy regarded as one science in middle ages.

Reasons why this is now impracticable.

Objections to prescription writing.

What is the true object of dispensing?

SECOND DAY, THURSDAY, JUNE 29th.

1:30 P. M.

1. A New Method for the Withdrawal of Pleural Effusions.

W. M. DONALD and R. E. MERCER, Detroit.

The authors propose to demonstrate the method of withdrawal of pleuritic effusion of a serous character by the use of an aspiratory apparatus, new to this country, but used by Italian clinicians for some years past, and also the introduction of either sterilized or filtered air to replace the effusion and to splint the lung until natural conditions of the pleural and lung tissue are restored.

The method bears resemblance to that of Murphy, of Chicago, in the treatment of Pulmonary Tuberculosis by a splint of nitrogen gas in the pleural cavity.

2. The Value of Rectal Exploration as an Aid to Diagnosis in Diseases of Children.

LOUISE ROSENTHAL-THOMPSON,
Traverse City.

The importance of rectal explorative aid in bimanual palpation in diagnosing difficult cases occurring in children. Method of examination. Cases illustrating the value of the procedure.

3. The Medical Inspection of Schools.

GUY L. KIEFER, Detroit.

History of medical inspection of school children. Cities in which such inspection is done. Objects of inspection. Medical inspection of schools in Detroit, results obtained by same. Diseases for which children are excluded from Detroit schools. Effect of medical inspection on the prevalence of such diseases. How system should be extended and enlarged. Conclusion.

4. Infant Mortality in Michigan.

HERBERT M. RICH, Detroit.

Significance of Infant Mortality. Statistics of Michigan and Detroit compared with other parts of the United States. Tables. Importance of infant diarrhea. General mortality rate. Conclusions. Reasonable infant mortality. Some popular fallacies regarding causes of infant mortality. Conclusions from statistics. Opinions on which diseases may be called "preventable." Application of consensus of opinion to statistics of Michigan, showing what part of our mortality is preventable. Conclusions.

5. Indigestion in Infancy and Its Relation to Summer Diarrhea.

CHAS. DOUGLAS, Detroit.

Foods of infants. Digestive secretions and amounts thereof. Results of improperly digested foods as prodromal evidences of diarrhea. The great necessity of avoiding these digestive disturbances in warm weather.

6. Asthma and Hay Fever.

R. B. ARMSTRONG, Charlevoix.

7. Intestinal Antisepsis. Report of a Series of Experiments on Animals.

S. EDWARD SANDERSON, Detroit.

Realizing the lack of positive knowledge in this field, the author has carried on a series of experiments on the living animal to gain positive data.

THIRD DAY, FRIDAY, JUNE 30th.

1:30 P. M.

Election of Orator, Chairman and Secretary (for two years) of Section.

1. Psychotherapeutics of Neurasthenia.

JEANNE C. SOLIS, Ann Arbor.

The etiology, symptoms, pathology, diagnosis and treatment of neurasthenia, with special reference to the psychical symptoms and their treatment.

2. Neurasthenia.

C. W. HITCHCOCK, Detroit.

Need of its recognition as a real entity.

Not by any means generally due to displaced viscera.

Pathology for obvious reasons not so firmly established as in the evidently organic diseases; yet suggestive advances made in its direction.

Diagnosis, differential and other. Its border-line position.

Varieties: The mooted traumatic neurasthenia.

Symptomatology necessarily varied.

Treatment too cavalierly dismissed by the superficial and the doubting.

The importance here of physiological therapeutics, patiently, thoughtfully and scientifically applied.

3. Traumatism and Shock as a Factor in the Production of Nervous and Mental Diseases.

SAMUEL BELL, Detroit.

Growing importance of the subject in keeping with increase of population and increased liability to accident due in part to modern methods of transportation.

Brief resume of railroad accidents, steam and electric, during the year 1904, as gathered from statistics of the Interstate Commerce Commission, as compared with those which occurred in Europe during same period.

Effects of injuries upon the head as a factor in the production of mental and nervous disease, severity of injury not bearing any constant relation to the severity of the mental aberration.

Importance of consideration of Railroad and Electric accidents on account of legal questions involved in which the physician and surgeon play an important part.

Some of the more immediate physical results of injury.

Pathology of neuroses and psychoses due to trauma.

Brief report of clinical cases due to trauma, both mental and physical (shock), where the physical trauma was absent, entirely psychical.

4. Psychology in Medicine.

W. E. NEWARK, Charlotte.

Is psychology a legitimate field of medicine? What is the physician's position in regard to its practice?

Should we not treat the subject in the light of modern science, thus rescuing it from the charlatans and quacks?

5. Intermittent Claudication.

JOHANN FLINTERMANN.

History of our knowledge of the Disease—Pathology, Symptoms, Diagnosis, Prognosis, Treatment.

6. The Physiological and Chemico-physical Action and Effect of Mt. Clemens Mineral Baths.

RICHARD LEUSCHNER, Mt. Clemens.

7. Report of 105 Consecutive Cases of Typhoid Fever.

R. S. ROWLAND, Detroit.

With especial reference to Diagnosis, Complications and Treatment.

SECTION ON SURGERY, OPHTHALMOLOGY AND OTOTOLOGY

THE NEW ARLINGTON.

The Secretary of the Section will collect all papers as soon as read.

Members will please hand in their discussions in writing to the Secretary of the Section before leaving.

Chairman—E. C. TAYLOR, Jackson.

Secretary—John W. MOORE, Atlantic Mine.

FIRST DAY, WEDNESDAY, JUNE 28th.

1:30 P. M.

1. Thrombosis of Anterior Tibial Artery in Gun-shot Wound.

L. W. GARDNER, Harbor Springs.

Thrombosis of anterior tibial artery in gun shot wound of right limb in a lady 62 years of age occurring in Emmet County, Feb. 5th, 1905, and treated in Lockwood hospital, Petoskey.

2. The Intestine Surgically Considered, with special reference to its Sterilization. A New Open Method for Lateral Anastomosis.

S. EDWARD SANDERSON, Detroit.

3. Treatment of Ophthalmia Neonatorum.

EUGENE SMITH, Detroit.

4. The Recognition and Management of Acute Mastoiditis by the General Practitioner.
LEARTUS CONNOR, Detroit.
5. Overlooked Anomalies of the Eye with Pronounced Nervous Reflexes.
A. E. BULSON, Jackson.
6. Eye Strain Reflexes.
CALVIN R. ELWOOD, Menominee.
7. Disorders from Eye Strain.
O. A. GRIFFIN, Ann Arbor.
8. The Methods of the Total Opening of the Middle Ear (so-called Radical operation) with Stacke's Method (Illustrated).
EMIL AMBERG, Detroit.
3. Report of Four Cases of Cholecystectomy with Specimens.
H. O. WALKER, Detroit.
4. The Avoidance of Traumatism during Physical Examination.
ALEXANDER MACKENZIE CAMPBELL, Grand Rapids.
5. A Preliminary Note on the Sterilization and Absorbability of Catgut.
C. B. NANCREE, C. F. TENNEY, F. R. WALDRON, Ann Arbor.
6. Do Patients die from Paralysis or Mechanical Obstruction of the Bowels following Laparotomy.
F. J. W. MAGUIRE, Detroit.
7. Congenital Bilateral Fusion of upper end of Radius with Ulna.
W. E. BLODGETT, Detroit.

SECOND DAY, THURSDAY, JUNE 29th.

1:30 P. M.

1. Diagnosis and Treatment of Empyema of the Chest.
A. I. LAWBAUGH, Calumet.
2. Wound Infection Resulting from the Use of Etage Sutures.
S. C. GRAVES, Grand Rapids.
3. Bladder Neoplasms. Why so generally hopeless.
F. W. ROBBINS, Detroit.
4. Treatment of Compound Fractures with Crushing of the Soft Parts.
W. T. DODGE, Big Rapids.
5. Statistics of Cancers and Tumors.
T. A. MCGRAW, Detroit.
6. Skin Grafting. Autoplastic, Heteroplastic, Transportation by Pedicle Method. Time of Growth, etc.
ANGUS McLEAN, Detroit.
7. A Few Results of Roentgen-Ray Therapy with Report of Cases.
CONRAD GEORGE, JR., Ann Arbor.

THIRD DAY, FRIDAY, JUNE 30th.

1:30 P. M.

Election of Orator, Chairman and Secretary (for two years) of Section.

1. Ulcerations of Ano-Rectal Region.
LOUIS J. HIRSCHMAN, Detroit.
2. Gangrene of the Scrotum.
A. W. HORNBOGEN, Marquette.

SECTION ON OBSTETRICS AND GYNECOLOGY

THE NEW ARLINGTON.

The Secretary of the Section will collect all papers as soon as read.

Members will please hand in their discussions in writing to the Secretary of the Section before leaving.

Chairman—A. N. COLLINS, Detroit.

Secretary—FLORENCE HUSON, Detroit.

FIRST DAY, WEDNESDAY, JUNE 28th.

1:30 P. M.

1. The Relation of the Physician to his Pregnant Patient.

W. P. MANTON, Detroit.

Attention called to some of the questions relating to the hygiene and management of pregnancy, and attempt to point out why the physician should instruct his patient in the manner of life which she should pursue during this trying period.

2. The Technique of Labor.
WALTER HUME SAWYER, Hillsdale.
3. The Uses and Abuses of the Obstetric Forceps.

J. J. MULHERON, Detroit.

Proper application presupposes a correct diagnosis of presentation. Proper traction involves a correct knowledge of the mechanism of labor. As an aid to diagnosis of presentation external palpation is indispensable. Undue tractive force is to be deprecated. The value of the forceps and its use in correcting occipito-posterior presentations.

4. Accouchment Forcé.

EDWARD T. ABRAMS, Dollar Bay.

The tampon, bag, metal, and manual dilation.
Cervical incisions. Vaginal Caesarian section.
Conservative Caesarian section. The Bossi dilator.

5. Placenta Praevia.

G. W. NIHART, Petoskey.

6. Puerperal Sepsis.

WM. F. METCALF, Detroit.

Preventive treatment. Curettage. Cul-de-sac incision. Hysterectomy. Serum therapy. Prognosis.

5. Congenital Umbilical Hernia.

H. WELLINGTON YATES, Detroit.

JAMES E. DAVIS, Detroit.

Report of two cases operated, with observations thereon, measurements of tumors, contents of sacs, etc. Review of literature.

6. Post-operative Femoral Phlebitis—With Special Reference to the Prognosis.

BENJAMIN R. SCHENCK, Detroit.

7. Tubercular Peritonitis.

J. G. LYND, Ann Arbor.

Varieties. Parts most frequently first attacked. Diagnosis. Prognosis. Treatment, Medical and results, Surgical and results.

SECOND DAY, THURSDAY, JUNE 29th.

1:30 P. M.

1. Ligament Operations for Uterine Retrodisplacements.

J. WESLEY BOVEE, Washington, D. C.

2. A New Method of Shortening the Round Ligaments.

J. H. KELLOGG, Battle Creek.

The round ligaments are the only natural and suitable anterior supports of the uterus. Ventral fixation and other methods either fail or are subject to serious inconveniences. Permanent retroversion cannot occur without abnormal lengthening of the round ligaments. Naturally then the radical remedy is to be found in shortening these ligaments. The ordinary external method is open to one objection, the possibility of hernia. With proper care this is removed.

The new method, described in the paper, shortens the ligaments by drawing up a loop of each ligament through the rectus muscle, through a median incision. The loops are arranged to meet at the median line beneath the sheath of rectus which is closed over them. There is no danger of hernia with this method. This is especially applicable in cases of retroversion, in which the abdomen has been opened for removal of the appendages or some other purpose. This method has been employed in about twenty-five cases with uniformly good results.

3. Vaginal and Uterine Prolapse.

J. H. CARSTENS, Detroit.

Relief by pessaries, then a plastic operation. Ventral fixation and suspension. Finally, vaginal hysterectomy.

4. Abdominal versus Vaginal Route for Intra-Abdominal Conditions in the Female.

WILLIAM BISHOP, Bay City.

Abdominal route permits inspection of all of the abdominal and pelvic viscera; and conditions in addition to the one operated upon but not clear enough to have been diagnosticated may be removed.

Bowels, bladder and ureter often injured while performing vaginal section. Often necessary to open abdomen after having begun the operation through the vagina.

THIRD DAY, FRIDAY, JUNE 30th.

1:30 P. M.

Election of Orator, Chairman and Secretary (for two years) of Section.

1. Ectopic Gestation.

JAMES W. McMEEKIN, Saginaw.

2. The Frequency of Ectopic Gestation.

JAMES A. KING, Manistee.

1. Changes the whole subject of ectopic gestation has undergone in past ten or twelve years. Ancients supposed it to be a very rare condition and confounded it with hæmatocele.

2. Recent data relative to its frequency rare. General practitioner apt to underestimate the number of cases he is likely to meet. Necessity of emphasizing its frequency great. Lack of early recognition of rupture serious in its consequences. Extreme pain, profound shock, collapse, marked evidence of hemorrhage, signs emphasized formerly, now known to be frequently absent. Ectopic pregnancy probably as frequent in exposed females between twenty-five and forty as appendicitis.

3. A few illustrative cases of unrecognized extra uterine pregnancy.

3. A Case of late Posterior, Mesometric Pregnancy.

H. W. LONGYEAR, Detroit.

A brief resume of the etiology and pathology of Ectopic pregnancy. Case an excellent illustration of the downward rupture of the pregnant tube, with development of the fœtus to full time in the broad ligament, with consequent dissection of peritoneum from posterior pelvic wall.

4. Ectopic Pregnancy.

W. K. WEST, Calumet.

Report of case with unusual post operative complications.

5. Important Factors in the Success of Abdominal Operations.

LOUIS J. HIRCHMAN, Detroit.

The operator himself, care and sterilization of his hands, anesthesia, preparation of patient, time of day, prevention of nausea, preparation of field of operation, practical points in technique, prevention of adhesions, avoidance of shock, drainage, wound closure, after treatment.

6. Dilatation of the Cervix Uteri.

S. EDWARD SANDERSON, Detroit.

A consideration of some of the principles involved, exhibition of a new instrument for dilatation.

OFFICERS OF THE SOCIETY.

President—B. D. HARISON.....Saulte Ste. Marie
First Vice-Pres.—DON M. CAMPBELLDetroit
Second Vice-Pres.—WM. M. EDWARDS.....Kalamazoo
Third Vice-Pres.—RICHARD R. SMITH.....Grand Rapids
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General Secretary—A. P. BIDDLE.....Detroit
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General Medicine—JOHN J. REYCRAFT, Petoskey, *Chairman*; H. B. BRITTON, Ypsilanti, *Secretary*.
Surgery, Ophthalmology and Otology—E. C. TAYLOR, Jackson, *Chairman*; JNO. W. MOORE, Atlantic Mine, *Secretary*.
Obstetrics and Gynecology—A. N. COLLINS, Detroit, *Chairman*; FLORENCE HUSON, Detroit, *Secretary*.

BOARD OF COUNCILORS AND COUNCILOR DISTRICTS.

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Third—W. H. HAUGHEY, Sec'y....	1909	Battle Creek
Fourth—G. D. CARNES.....	1905	South Haven
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Twelfth—THEO. A. FELCH.....	1907	Ishpeming
First District—Lenawee, Macomb, Monroe, Oakland, Washtenaw, Wayne.		
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Sixth District—Clinton, Genesee, Livingston, Shiawassee.		
Seventh District—Huron, Lapeer, Sanilac, St. Clair.		

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Ninth District—Benzie, Charlevoix (including Antrim), Grand Traverse (including Leelanaw), Kalkaska, Manistee, Mason, Missaukee, Wexford.

Tenth District—Alpena (including Alcona), Bay (including Arenac and Iosco), Cheboygan, Emmet, O., M. C. O., R., O., (Otsego, Montgomery, Crawford, Oscoda, Roscommon and Ogemaw combined), and Presque Isle.

Eleventh District—Mecosta, Montcalm, Muskegon (including Oceana), Newaygo, Osceola (including Lake).

Twelfth District—Chippewa (including Luce and Mackinac), Delta, Dickinson-Iron, Gogebic, Houghton (including Paraga, Keweenaw and Ontonagon), Marquette (including Alger), Menominee, Schoolcraft.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

H. O. WALKER, Detroit, term expires 1905.
 V. C. VAUGHAN, Ann Arbor, term expires 1905.
 W. K. WEST, Calumet, term expires 1906.
 CHAS. B. STOCKWELL, Port Huron, term expires 1906.

MICHIGAN MEMBER OF THE NATIONAL LEGISLATIVE COUNCIL OF THE AMERICAN MEDICAL ASSOCIATION.

EMIL AMBERG, Detroit.

PERMANENT COMMITTEES.

ON SCIENTIFIC WORK.

B. D. HARISON, Sault Ste. Marie, *Chairman*.
 A. P. BIDDLE, Detroit, *General Secretary*.
 JOHN J. REYCRAFT, Petoskey.
 E. C. TAYLOR, Jackson.
 A. N. COLLINS, Detroit.
 H. B. BRITTON, Ypsilanti.
 JOHN W. MOORE, Atlantic Mine.
 FLORENCE HUSON, Detroit.

ON SCIENTIFIC EXHIBIT.

A. S. WARTHIN, Ann Arbor, *Chairman*.
 P. M. HICKEY, Detroit.
 D. M. COWIE, Ann Arbor, *Secretary*.

ON ARRANGEMENTS.

JOHN J. REYCRAFT, Petoskey, *Chairman*.
 GEORGE W. NIHART, Petoskey.
 HENRY T. CALKINS, Petoskey.
 EDWARD A. RUNYAN, Harbor Springs.
 ALBERT STALEY, Pellston.
 GEORGE E. REYCRAFT, Petoskey.

ON LEGISLATION AND PUBLIC POLICY.

W. H. SAWYER, Hillsdale, *Chairman*.
 JAMES W. INCHES, Saint Clair.
 D. B. CORNELL, Saginaw.
 F. B. TIBBALS, Detroit.

ON VITAL STATISTICS.

H. B. BAKER, Lansing, *Chairman*.
 A. H. ROCKWELL, Kalamazoo.
 G. G. BARNETT, Ishpeming.

SPECIAL COMMITTEES.

TO PETITION THE LEGISLATURE FOR AN APPROPRIATION FOR THE ESTABLISHMENT OF A PROPERLY EQUIPPED SANITARIUM FOR THE TREATMENT OF THE EARLY STAGES OF TUBERCULOSIS.

H. J. HARTZ, Detroit, *Chairman*.
J. B. WHINERY, Grand Rapids.
BENJAMIN F. HORNER, Lake Odessa.
C. N. SOWERS, Benton Harbor.
B. R. SHURLY, Detroit.

TO ENCOURAGE THE SYSTEMATIC EXAMINATION OF THE EYES AND EARS OF SCHOOL CHILDREN THROUGHOUT THE STATE.

WALTER R. PARKER, Detroit, *Chairman*.
C. H. BAKER, Bay City.
JOHN R. ROGERS, Grand Rapids.

MICHIGAN MEMBER OF COMMITTEE ON TRANSPORTATION, AMERICAN MEDICAL ASSOCIATION.

F. W. ROBBINS, Detroit.

TO SECURE DATA REGARDING PREVALENCE OF VENEREAL DISEASES IN MICHIGAN.

A. E. CARRIER, Detroit, *Chairman*.
RALPH H. SPENCER, Grand Rapids.
JAS. F. BREakey, Ann Arbor.

MISCELLANEOUS.

All meetings are held on Central Standard Time at the New Arlington.

The *Scientific Exhibit* will be found in the New Arlington.

The *Exhibits* will be found in the New Arlington.

All meetings will be called to order promptly on time.

Each member in attendance shall enter his name in the Registration Book, indicating the County Society of which he is a member. *Please do not fail to register upon arrival at the New Arlington.*

Only members who are registered are entitled to vote.

The ballot box for the election of *President* will be found at the New Arlington at the place of the General Meetings. The polls close at 12 o'clock noon, June 30th.

BY-LAWS—CHAPTER III, SECTION 5.

All papers read before the Society shall be its property. Each paper read shall be deposited immediately with the Secretary, but the author may also publish the same in any reputable journal not published in this State, provided the printed article bears the statement that it was "read before the Michigan State Medical Society."

ENTERTAINMENT.

The Profession of Emmet County will make ample provision for the comfort and entertainment of the visiting members.

HOTELS.

New Arlington (Headquarters) . . . \$2.50 to \$4.00
Cushman 2.50 to 3.50
Perry 2.50 to 3.00
Imperial 2.50 to 3.00

REDUCED RAILROAD RATES.

One and one-third fare for the round trip.

When conventions of regularly organized Societies are held in Michigan, at which *not less than one hundred persons* are in attendance, who present certificates issued by the lines of this and the Central Passenger Association, or lines of other Passenger Associations co-operating with the same, certifying that they have paid full fare of not less than 75 cents each to the place of meeting, the return of such parties is authorized at *one-third the first-class limited fare*, via the route traversed in going to the meeting, provided the rules are complied with and the Secretary of the Convention fills in the certificates at the point at which the Convention is held, certifying that the holders thereof have been in actual attendance upon the Convention.

Tickets for return journey will be furnished only on certificates dated not more than THREE DAYS before the date the Convention assembles, nor more than TWO DAYS after the first day of the meeting, and presented within THREE DAYS after its adjournment (it is understood that Sunday will not be reckoned as one of the three days either before the opening date or after the closing date of meeting), and all return tickets will be for continuous passage; no stop-over privileges being allowed on tickets sold at less than regular unlimited fares.

Blank Certificates are kept on hand by Ticket Agents of all lines in the lower peninsula of Michigan, and will be furnished by them upon application at the time tickets are purchased.

"No refund of fare can be expected because of failure of the parties to obtain Certificates."

A charge of 25 cents will be made at the meeting at Petoskey by Special Agent for each certificate issued by him.

DELEGATES TO ANNUAL MEETING

Michigan State Medical Society, at Petoskey, June 28, 29 and 30, 1905

County.	Delegate.	Alternate.
ALLEGAN	A. L. VAN HORN, Otsego.....	O. F. BURROUGHS, Plainwell.
BARRY	C. A. MCINTYRE, Hastings.....	J. W. RIGTERINK, Freeport.
BAY	WM. BISHOP, Bay City	J. W. GUSTIN, Bay City.
BENZIE	C. P. DOYLE, Frankfort	G. O. EDMUNDS, Honor.
BERRIEN.....	C. B. CHAPIN, Benton Harbor.....	E. J. WITT, St. Joseph.
BRANCH	S. SCHULTZ, Coldwater.....	H. W. WHITMORE, Quincy.
CALHOUN.....	A. J. ABBOTT, Albion.....	L. M. GILLETTE, Battle Creek.
CASS	WM. C. MCCUTCHEON, Cassopolis.....	D. A. LINK, Volinia.
CHEBOYGAN.....	CHAS. B. TWEEDALE, Cheboygan.....	CHAS. B. MARKS, Cheboygan.
CHIPPEWA	C. J. ENNIS, Sault Ste. Marie	J. ROSENTHAL, Sault Ste. Marie.
CLINTON	S. E. GILLAM, St. Johns	O. B. CAMPBELL, Ovid.
DELTA	H. W. BANKS, Escanaba.....	W. J. LAIRD, Nahma.
EATON	CHARLES H. MEAD, Olivet.....	A. R. STEALEY, Charlotte.
EMMET	G. W. NIHART, Petoskey	GEO. E. REYCRRAFT, Petoskey.
GENESEE.....	C. S. WHEELER, Flushing.....	A. S. WHELOCK, Goodrich.
GOGEBIC.....	JOHN R. MOORE, Ironwood.....	GEO. L. LOOPE, Bessemer.
GRAND TRAVERSE	ALBERT H. HOLLIDAY, Traverse City.....	J. M. WILHELM, Traverse City.
GRATIOT.....	I. N. BRAINERD, Alma	STILES KENNEDY, St. Louis.
HILLSDALE.....	WALTER A. SAWYER, Hillsdale.....	BION WHELAN, Hillsdale.
HOUGHTON	W. P. SCOTT, Houghton	N. S. McDONALD, Hancock.
HURON	C. B. MORDEN, Pigeon	F. E. LUTON, Kilmanagh.
INGHAM.....	H. A. HAZE, Lansing.....	J. F. CAMPBELL, Lansing.
IONIA	C. C. DELLENBAUGH, Portland.....	F. W. BRALEY, Saranac.
ISABELLA.....	C. D. PULLEN, Mt. Pleasant.....	A. T. GETCHELL, Mt. Pleasant.
JACKSON.....	D. E. ROBINSON, Jackson.....	C. D. MUNRO, Jackson.
KALAMAZOO.....	A. H. ROCKWELL, Kalamazoo.....	P. T. BUTLER, Kalamazoo.
KENT	LOUIS BARTH, Grand Rapids.....	N. H. KASSABIEN, Coopersville.
"	T. C. IRWIN, Grand Rapids.....	E. B. STRONG, Byron Centre.
LAPEER	HUGH MCCOLL, Lapeer.....	GEO. W. JONES, Imlay City.
LENAWEE	R. M. ECCLES, Blissfield	D. F. DUMBAULD, Blissfield.
LIVINGSTON.....	A. E. MCGREGOR, Fowlerville.....	H. C. HUNTINGTON, Howell.
MACOMB.....	JAMES YATES, Roseville	H. G. BERRY, Mt. Clemens.
MANISTEE	JAS. A. KING, Manistee.....	T. F. SPILLANE, East Lake.
MARQUETTE	C. F. MOLL, Marquette.....	H. S. SMITH, Negaunee.
MASON	E. P. THOMAS, Scottville	A. W. ABBOTT, Ludington.
MECOSTA.....	L. S. GRISWOLD, Big Rapids	JOSEPH MCNEECE, Morley.
MENOMINEE	C. R. ELWOOD, Menominee.....	EDW. SAWBRIDGE, Stephenson.
MIDLAND.....	W. T. MORRISON, Midland.....	E. J. DOUGHER, Midland.
MONROE.....	JEROME VALADE, Newport.....	C. T. SOUTHWORTH, Monroe.
MONTCALM.....	F. R. BLANCHARD, Lakeview.....	W. P. GAMBER, Stanton.
MUSKEGON.....	J. F. DENSLOW, Muskegon.....	GEO. S. WILLIAMS, Muskegon.
NEWAYGO	N. DE HAAS, Fremont.....	F. HOLMES BROWN, Newaygo.
OAKLAND	C. M. RAYNALE, Pontiac.....	WM. MCCARROLL, Pontiac.
O. M. C. O. R. O	H. W. KNAPP, Johannesburg	STANLEY N. INSLEY, Grayling.
OSCEOLA	A. HOLM, Ashton.....	F. M. HUNTLEY, Reed City.
OTTAWA	W. S. WALKLEY, Grand Haven	J. A. MABBS, Holland.
PRESQUE ISLE	JOHN YOUNG, Onaway	D. C. HOWELL, Onaway.
SAGINAW.....	M. D. RYAN, Saginaw	J. N. KEMP, Saginaw.
SANILAC	J. S. LITTLE, Sanilac Centre.....	GEO. SIMENTON, Marlette.
SCHOOLCRAFT.....	C. S. LAYTON, Blaney.....	J. M. SATTLER, Manistique.
SHIAWASSEE	COLIN MCCORMICK, Owosso.....	JOS. H. ELDRED, Chesaning.
ST. CLAIR	C. C. CLANCY, Port Huron	G. S. NEY, Port Huron.
ST. JOSEPH.....	THOS. J. HAINES, Three Rivers.....	W. C. CAMERON, White Pigeon.
TRI-COUNTY.....	E. B. BABCOCK, Kalkaska	W. B. WALLACE, Manton.
TUSCOLA.....	J. E. HANDY, Watrousville.....	W. C. MEREDITH, Caro.
VAN BUREN	J. C. MAXWELL, Paw Paw.....	N. A. WILLIAMS, Bangor.
WASHTENAW.....	WM. BLAIR, Ann Arbor.....	R. BISHOP CANFIELD, Ann Arbor.
"	JOHN A. WESSINGER, Ann Arbor.....	IRA D. LOREE, Ann Arbor.
WAYNE.....	E. S. SHERRILL, Detroit.....	A. D. HOLMES, Detroit.
"	WM. F. METCALF, Detroit.....	H. R. VARNEY, Detroit.
"	WILLIS S. ANDERSON, Detroit	B. R. SCHENCK, Detroit.
"	A. E. CARRIER, Detroit.....	H. W. YATES, Detroit.
"	F. W. ROBBINS, Detroit.....	C. G. JENNINGS, Detroit.
"	GUY L. KIEFER, Detroit.....	FLEMMING CARROW, Detroit.
"	C. W. HITCHCOCK, Detroit.....	JOHN N. BELL, Detroit.

Book Notices.

Under the Charge of

RAY CONNOR.

THE URINE AND FECES IN DIAGNOSIS. By Otto Hensel, Ph. G., M. D., and Richard Weil, A. M., M. D., in collaboration with Smith Ely Jelliffe, M. D., Ph. D. In one octavo volume of 334 pages. Illustrated with 116 engravings and 10 colored plates. Cloth \$2.75 net. Lea Brothers & Co., Philadelphia and New York, 1905.

In this volume, the authors have aimed to supply a compact, handy and trustworthy guide to the combined study of urine and feces. It is quite certain that these by-products of the human factory are much too little studied. If the present book helps to make careful investigations of these forms of excretion more common, it will have served an exceedingly useful function. The effort has been made to furnish the facts so as to be of easy access to the busy practitioner and still retain complete accuracy. The comparatively recent work in Cryoscopy has been included as well as the Pancreatic Reaction described by Mayo Robson and Cumming, about a year ago. Nearly one-half the volume is given up to urinalysis.

The remainder of the book is devoted to the feces. This branch of physical diagnosis has been little pursued except by the specialists in children's diseases. Thanks, however, to the work of such investigators as Schmidt and Strassburger, the importance of the subject is beginning to receive recognition. The bacteriology of the feces is based largely on the work of Ford done under the auspices of the Rockefeller Research Fund, and his classification is followed. An index closes the volume, which is attractively gotten out and profusely illustrated.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1905. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery. Under the editorial charge of George M. Gould, A. M., M. D. In two volumes. Volume I, including General Medicine; Volume II., General Surgery. Two octavos of about 700 pages each, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1905. Per volume: Cloth, \$3.00 net; half morocco, \$3.75 net.

The 1905 issue of *Saunders's American Year-Book of Medicine and Surgery* still continues to hold its high place amongst publications of this class. The material for these volumes is drawn from journals, monographs and text-books, both here and abroad, together with critical comments by competent editors on the various topics taken up. A general summary precedes each section, giving in a few words the most important advances made during the past year. The volume on medicine considers general medicine, pathology, materia medica, physiology, pediatrics, syphilis, etc.

The illustrations for this volume are insignificant in number and importance. This volume contains Dr. S. W. Abbott's last contribution to the department of hygiene in this series, completed just before his death.

The volume on general surgery contains not only surgery and anatomy, but also the more or less surgical specialties, such as gynecology and ophthalmology. The same plan of treatment is followed as in the preceding volume, but the illustrations are numerous and good. One need not coincide with all the views of the various editors as to the relative importance of things in order to fully realize the value of the work in keeping one in touch with what is going on in medicine and surgery. It is perhaps of special value in those fields where the reader is not at work, but of which he should know something. The labor of preparing such volumes is indeed enormous, and a high order of criticism is necessary to give them the highest value.

SAUNDER'S QUESTION COMPENDS. Essentials of the Practice of Medicine. Prepared especially for students of medicine. By William R. Williams, M. D. 12mo. of 461 pages. Philadelphia and London: W. B. Saunders & Company, 1905. Double number. Cloth, \$1.75 net.

This new volume of the series is an unusually good one. The arrangement of the material is good and a surprising amount of valuable information is condensed into relatively few pages. The writer shows his experience as a teacher of medical students in the clearness and conciseness with which everything is presented. While of course nothing new is given, still the main features of the various diseases are considered and properly emphasized as to their relative importance. The book can be highly recommended to such as need this kind of work in preparing for examination and quiz room.

MALFORMATIONS OF THE GENITAL ORGANS OF WOMEN. By Ch. Debierre. Translated by J. H. C. Simes. 5 $\frac{3}{4}$ x 8 $\frac{1}{4}$ in.; 182 pages; 85 illustrations. Philadelphia: P. Blakiston's Son & Co., 1905. Cloth, \$1.50 net.

No phase of teratology has been more carefully worked out, in its relations to embryology, than have the malformations of the genital organs. The literature on the subject is voluminous, but much of it is inaccessible. This book covering the anatomy, embryology and malformation of the female organs is a translation from the French, which has been made "in order to fill a void in English medical literature."

While it contains no new facts, it is a welcome addition to one's library, for it gathers together in small space and logical sequence the main facts relating to the subject. B. R. S.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

The Present Limitations of Serum Therapy in the Treatment of the Infectious Diseases.—

The bacteria concerned in the production of the specific infectious disease fall into three classes. First, those which, like the bacilli of diphtheria and of tetanus, produce a virulent, real toxin which is set free in the culture media. Second, those bacteria which secrete but little or no free toxin but do contain a powerful endotoxin which is partly liberated only on the death and disorganization of the bacterial cells; good examples of this class are the pneumococcus, typhoid bacillus, the streptococcus, etc. Third, those bacteria that produce no free toxins nor have in the bacterial cells endotoxins of any power, but in which the cell plasma contains other poisons in addition to the protein poisons common to all bacterial cells. The most important member of this group is the tubercle bacillus. Against the first group the antitoxic sera are available, but their success depends largely on the interval of time that has elapsed since the infection began, for the antitoxin can bind only such toxin as has not yet had time to enter into combination with the body cells. In tetanus the poison becomes fixed in the central nervous system so rapidly that the serum has little chance for effect. The difficulty with the anti-bacterial sera is that the body's supply of alexin is very small, so that theoretically the injection of the serum should be accompanied by an additional dose of fresh normal animal serum to supply this deficiency; an impracticable procedure. The attempts to treat one disease by means of the antiserum of another, as has been attempted by injecting diphtheria antitoxin in pneumonia and cerebrospinal meningitis is repugnant to the principles of scientific serum therapy and tends to discredit its principles. The use of Moser's antistreptococcus serum in scarlet fever in the Vienna hospitals has not given results equal to those obtained by the author in the Riverside Hospital, following the classical lines of treatment. The introduction into the body of a child of the large amounts of serum required by Moser's plan is also objectionable owing to a possible hemolytic action.—(H. W. BERG, *Medical Record*, May 6, 1905.)

Some Remarks on Physical Diagnosis. (1) Transmanual Auscultation. (2) Ulnar Palpa-

tion.—Transmanual auscultation consists in auscultating through the hand placed over the heart. This method can be used satisfactorily only with one of the newer binaural stethoscopes. Heart sounds and heart murmurs can be heard with surprising distinctness through the hand placed on the precordia. The method greatly facilitates the timing of a murmur, inasmuch as the palpation and the auscultation are done at the same time and place. It is not only possible to auscultate directly through the fingers and hand, but almost equally good results can be obtained by placing the finger, flexed at a right angle, on the apex beat, and then resting the stethoscope lightly on the finger. The principal advantage of transmanual auscultation will be found in differentiating presystolic from systolic murmurs. It is also of value in timing peculiar murmurs heard over the entire precordia, or perhaps the entire chest. Ulnar palpation is done with the ulnar side of the hand, and confines the examination to the individual interspaces. The ulnar side of the hand is laid in each interspace successively, while the patient counts "one, one, one;" "one, two, three;" or "ninety-nine," according to individual preference. The ulnar surface of either the hand or the little finger must be firmly placed in the interspace, the hand being held almost at a right angle with the patient's chest. It is best to stand a little to the side of the patient and use the same hand for both sides of the chest. The method gives accurate information and enables one to discover small shades of difference in the fremitus of contiguous interspaces and of corresponding areas on the two sides. It is of most value in the diagnosis of effusions, especially in determining the upper level of the exudate. It is practiced most successfully on the front of the chest. On the back, by reason of the difficulty in locating the interspaces, it is not so satisfactory, but it may be employed even there. This method is not offered as a substitute for the one now in vogue, but as an addition to it. Both should always be employed.—(DAVID RIESMAN, *American Medicine*, April 22, 1905.)

NEUROLOGY.

Under the Charge of

GUY L. CONNOR.

The Relation of the Cervical Sympathetic to Epilepsy.—The function of the cervical sympathetic is to control the muscular action of the cerebral blood vessels; to transmit impulse from the stomach, intestines and lungs; and to innervate the dilator muscles of the pupils and the unstriated muscles of the eyelids.—(HOPKINS, *New York Medical Journal*, March 5, 1904.)

The probable theory of epilepsy is that there is some circulatory disturbance in the brain. The cervical sympathetic ganglia contain the vaso-constrictor nerves and the excision of these structures prevents vascular spasm and therefore the lumen of the blood vessels is permanently dilated. This increases the nutritive supply to the cerebral nerve cells. As a result of this increased blood supply, toxic substances are also more readily removed from the brain tissue.—(HOPKINS, *New York Medical Journal*, March 5, 1904.)

According to Winter, 6.6 per cent. of the 122 cases that were well observed, were cured; 13.9 per cent. of them were preliminarily cured (not under observation long enough to permit a positive statement of a permanent cure); 18.9 per cent. improved; 54.9 per cent. not improved; 5.7 per cent. died.—(*Journal of Nervous and Mental Diseases*, April, 1905.)

Spratling and Park report three cases of epilepsy on which Park did a bilateral sympathectomy. The sympathetic nerves and ganglia which were removed received a thorough histological examination. They found the following changes, none of which does Spratling consider the lesion of epilepsy, at least not until more work is done on this subject.

1. Pigmentation of a greater or less number of nerve cells of the cervical ganglia in all three cases.
2. Presence in all three cases of at least one cell with a double nucleus in some one of the extirpated ganglia.
3. In one case a focus of inflammation, i. e., of perivascular round cell infiltration.
4. Degenerative changes in the medullated nerve fibres in the sympathetic cord and ganglia of the excised portion in two cases.—(SPRATLING and PARK, *Journal of Nervous and Mental Diseases*, April, 1905.)

Arteriosclerosis in Its Relation to Diseases of the Nervous System.—The etiologic factors which produce arteriosclerosis may be best considered under the headings, mechanical, infectious and toxic. Under the mechanical factors must be considered all those conditions which induce abnormally high blood pressure, such as physical overwork. It is noticeable that it is much more commonly caused when the blood pressure is raised to a high point sporadically. Infectious agents usually act through the formation of bacterial emboli or thrombi from which infection of the vessel walls extends. Toxins are doubtless the more common and important etiological factors concerned in arteriosclerosis. Certain of the toxemias are of infectious origin (diphtheria and chronic tuberculosis). In other instances the poisons are autogenous, as in habitual constipation, over-alimentation or in malnutrition. The more common toxic conditions are those occurring in alcoholism, chronic nephritis, lead poisoning, gout, rheumatism, and syphilis.

Studying the various diseases of the nervous system as resulting from arteriosclerosis the most frequently observed are apoplexy, whether due to occlusion of the vessels or hemorrhage, general paralysis of the insane, multiple sclerosis, cerebral atrophy, and cerebral syphilis.

In all cases of arteriosclerosis we must look for the predisposing cause. The kidney and heart should be carefully examined. Overwork, overeating, sedentary habits and the use of alcohol in excess must be modified. If a specific history is obtained, large doses of the iodides, especially in the early stages of the disease, should be given. In cases with a high tension pulse, thyroid extract is used. In old cases of atheroma, the writers use iodide of potassium, grs. 5 to 10 with thyroid extract, grs. 5, two or three times a day. In syphilitic cases with high arterial tension, nephritis, and cardiac hypertrophy due to alcoholic excesses, overwork, etc., much relief is obtained by the continued use of digitalis and nitro-glycerine combined in conjunction with iron. Calomel in small doses, gr. i/10. to i. is. to be given frequently. Proto-iodide of mercury in 1/6 grain doses three times a day is to be used whether the case is syphilitic or not.—(E. D. FISHER and H. BROOKS, *The Journal of Nervous and Mental Diseases*, May, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

The April edition of "*Annals of Surgery*" is given up to the study of hypertrophy of the prostate.

Pathology of Prostatic Hypertrophy.—1. Pathologically there are three types of prostates causing urinary obstruction: (a) The large, soft type, (b) the hard, small contracted type, and (c) the mixed type.

2. Infection does not influence the variety of the pathological change.

3. The contracted form of prostate is not a secondary stage of the large, soft type of hypertrophied prostate, but is distinct from it.

4. In many cases of hypertrophy of the prostate there is present a true muscular hypertrophy.

5. Gonorrhœa is not an important etiological factor in the production of this disease, and there is no necessity for assuming it to be.

6. Hypertrophy of the prostate results from glandular overgrowth, influenced by the degenerative changes of old age, and other agents which tend to produce the formation of fibrous connective tissue in an actively functioning gland.—(PAUL MONROE PILCHER).

The Catheter in Prostatic Hypertrophy.—The catheter still has a field of usefulness in those cases which need a catheter only once or twice a day, and are kept in perfect comfort by its proper use. When catheterism becomes difficult and therefore unsafe, or if infection of the bladder, pain and frequency of urination occur, the time for catheter palliation has passed, and the time for operation has come.—(PAUL THORNDIKE.)

Prostatism Without Enlargement of the Prostate.—Contracture of the neck of the bladder is frequently the cause for vesical obstruction and all the symptoms, commonly called prostatism, and usually attributed to hypertrophy of the prostate.

Contracture of the neck of the bladder is, in substance, a fibroid stenosis of the vesical orifice. It may occur in the young as well as in the aged.

Diagnosis of this condition is to be made, if we have to deal with complete or incomplete retention of urine, in a patient presenting a normal urethral length and a prostate normal to rectal touch. (Tubes and other central lesions have to be excluded.) Treatment should consist of division of the contraction by means of the author's galvano-cautery through a perineal opening.—(CHARLES H. CHETWOOD.)

Suprapubic Prostatectomy.—It is radical; no important vessels or nerves are cut; the urethra is not injured. Wounding of the rectum must be extremely rare. Palpation and inspection of all parts of the interior of the bladder are easy and accurate, and one may thus gain, as in no other way, a perfect understanding of the mechanical conditions which cause the obstruction. Having decided upon suprapubic section, there is no need for pre-operative cystoscopy; in other operations upon the prostate cystoscopy is practically a necessity. There is an almost total absence of shock, and the patient may be out of bed in 48 hours. No part of the urethra having been removed, treatment by the passing of sounds is avoided. Drainage is procured by siphonage and without perineal counteropening. The operation may be easily performed under nitrous oxide anaesthesia. The operation may be performed in two stages, which may be of enormous value in haemorrhage, in uraemia, or in grave sepsis of the bladder when catheterization is difficult or painful or dangerous. Speed is a most important element in the surgery of the aged, and the method here described is by far the quickest of those recommended for the relief of prostatism. Lastly, but far from least, impotency rarely supervenes.—(HOWARD LILIENTHAL.)

Conservative Perineal Prostatectomy.—I have come to the conclusion that for most cases perineal prostatectomy is the safest and surest and quickest method of curing the patient, that whereas the Bottini method is the simplest and quickest for a certain limited number of cases, which can best be determined by the cystoscope, it is not so safe, and nothing like so uniformly sure of relieving the obstruction as the perineal enucleation. The suprapubic route may be used in certain large intravesical lobes.—(HUGH H. YOUNG.)

Removal of the Hypertrophied Prostate.—I am inclined to the conclusion that, as a rule, for the removal of the hypertrophied prostate, the method of free curved transverse perineal incision, with full exposure of the gland in the wound of operation, is to be preferred.—(LEWIS STEPHEN PELCHER.)

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

Value of the Cystoscope and Ureter Catheter in Surgical Affections of the Kidney.—After giving the advantages of the cystoscope, Brown states that as a means of diagnosis the ureter catheter is valuable (1) by reason of what comes through it; (2) by reason of its service as a sound; (3) by its use as an X-ray landmark, with which to compare other shadows or questionable tumors. The most gratifying results are obtained in cases of tuberculosis, on account of the accurate and early diagnosis which can be made. In three cases of renal tuberculosis, no abnormality was seen in the ureteral opening on the affected side, while the catheter secured urine containing tubercle bacilli. Subsequent nephrectomy demonstrated the accuracy of the diagnosis.

Among the least satisfactory results were those in instances of renal hematuria, although the doubtful source of the bleeding was determined in all cases. The etiologic factor in more than 50 per cent. was not made out, despite most careful research by means of inoculation, cultural and X-ray methods. Such negative results supported the theory that the hemorrhage came from new growths and this diagnosis was verified in 80 of the cases.—(*Medical News*, March 11, 1905.)

Calculation of the Date of Delivery in Pregnancy.—Caie states that there is no absolutely sure method of determining the date of delivery and gives the conditions which may cause error. The length of gestation has been differently stated by different authorities, Duncan, 278 days; Schlichting, 273.2 days; Oldfield, 281.6 days; Löwenhardt, 279.8 days; Hassler, 280 days; Montgomery, 276 days, and Edgar 280 days, making an average of 278.3 days.

Employing the method of Naegele (counting back three months from the date of onset of the last menstrual period, adding seven days and counting a year forward) Caie kept records of 200 cases. In 53.7 per cent. labor occurred 3.4 days before the expected date; in 24.5 per cent. labor took place on an average of 1.8 days after the estimated time, and in 16 per cent. the estimated date was exactly correct. It is thus observed that the percentage of labors occurring before the estimated date is far in excess of those occurring after, and the author argues that the number of days added in Naegele's method is too great. In 50 cases calculated by Löwenhardt's method (multiplying by ten the number of days between the last menstrual period and the one preceding that) the date of the delivery was within 1.6 days of the estimated time.—(*Review Am. Med.*, March 11, 1905.)

Prophylaxis in Pregnancy and Labor.—Rogers contributes a paper on this subject. From the beginning of pregnancy the patient should be under the observation of her physician. The urine should be examined monthly so that renal insufficiency if present may be early recognized and treatment instituted. The hygiene of the patient's surroundings is of the greatest importance. Fresh air, both day and night, with exercise in the open air is beneficial. Frequent warm bathing is necessary to maintain a healthy condition of the skin. Plain, nourishing diet is called for, and the occasional use of laxatives. During the last few weeks of pregnancy the breasts should be examined and retraction of the nipples or tenderness of the skin relieved by appropriate measures. An alcoholic wash of tannic acid is good to toughen the nipples. Such simple measures will conduce to the comfort of the mother. The first warning of renal complications may be found in a low specific gravity of the urine or small quantity, with perhaps the presence of albumin. If albumin is found it is a most important danger signal and demands that energetic treatment be at once instituted. Examine the urine microscopically for the presence of casts which will indicate the condition of the kidneys. The diet of the patient in this condition of renal insufficiency should receive careful attention. Meat and eggs should be eaten sparingly if at all. Water should be drunk freely. If toward the end of pregnancy, a milk diet should be established. Saline laxatives should be used, also hot baths that the system may be relieved of excrementitious matter, the products of metabolism, and the skin maintained in a healthy condition. Extra work must be removed from the kidneys as much as possible and the renal circulation stimulated.

When entering the room of the woman in labor the physician should realize the tremendous responsibility which rests upon him. Two lives are entrusted to his keeping. The prospective mother lying in pain and helplessness trusts herself to him. The fate of her child also is in his hands. How often this trust is basely betrayed! Certainly not with malicious intent. But none the less deadly is the criminal carelessness of many who attend a lying-in woman, and without any care, sometimes without even a hasty washing of the hands, go about their important work. The careful attention to the rudimentary rules of surgical cleanliness would save many lives.—(*New York Med. Jour.*, April 15, 1905.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

A Multiple Vaccination Shield.—Wm. P. Swett advises multiple vaccination, the scarifications being placed in a square an inch and one-fourth apart. On the sixth or seventh day the dressing, consisting of four bunion plasters suitably trimmed and sewn together, is put on.—(*Medical Record*, April 22, 1905.)

Laboratory Diagnosis of Smallpox.—R. L. Thompson, St. Louis (*Journal A. M. A.*, April 1905), comments on the difficulties in the early diagnosis of smallpox and suggests the use of laboratory methods. A rapid method of paraffin imbedding recently described by Henke and Zeller is recommended by Thompson as specially available. It consists in using snippings from the lesions by fixation in pure acetone for from three-fourths to one and one-half hours and then directly transferring them to paraffin at 56 C. The subsequent treatment is that of any paraffin material; applying with the dropping bottle successively, xylol, absolute alcohol, thin celloidin, 95 per cent. alcohol, and water to the sections and then using the hematoxylin-eosin stain. The whole process requires about three hours, and the specific skin lesions and smallpox bodies can be observed. He considers that by this method fewer mistakes will be made by a microscopist of reasonable skill in smallpox diagnosis than in the ordinary microscopic tumor diagnosis.

Tuberculous Testicle and the X-Ray.—W. B. De Garmo reports the case of a man of 56 years who shortly after having one testicle removed for tuberculosis disease developed a similar condition in the other organ. As he was unwilling to have the operation repeated, X-ray treatment was tried. One hundred and twenty-six treatments of ten minutes each were given between November 3, 1902, and September 14, 1903. A medium tube was used at a distance of about ten inches. The first application relieved the pain. The swelling and tenderness also gradually subsided until at the time of the last treatment the testicle was apparently of normal size and in normal condition.—(*Medical Record*, April 15, 1905.)

Destructive Skin Diseases, Epithelioma, Lupus Vulgaris, and Syphilis.—Henry W. Stelwagon (Philadelphia) directs attention to the diagnostic value of ulceration, scarring, or both, as a factor in chronic skin diseases, and

especially when the disease is of limited area, as it points in an overwhelming majority of cases to either epithelioma, lupus vulgaris, or syphilis; the smallest proportion of such cases belong to lupus. Many of the so-called lupus cases reported in the various journals in the past several years by those unskilled in dermatologic differences, in connection with Röntgen-ray reports, were, if the histories were correct, examples of the rodent ulcer type of epithelioma, and some, examples of the tubercular syphiloderm. In some instances this conclusion was confirmed by the accompanying photographs. Apparently, a diagnosis of syphilis is often only made when a clear or suspicious history is obtainable, or the patient's virtue doubtful, whereas the fact is that women not infrequently contract the disease innocently from their husbands, may have mild or overlooked secondary symptoms; and further, that cases of extragenital chancres, whose nature may not have been recognized, are not at all uncommon, and the cutaneous disturbances following may be misinterpreted. In epithelioma the best plan of treatment is the removal of the morbid tissue by incision, curet supplemented by caustic application, or by caustic alone, according to the individual case; this treatment to be supplemented by Röntgen-ray exposures. While Röntgen treatment alone will frequently suffice, it is in many instances tedious, and often stops short of complete cure, and except in particular cases should not be advised as the sole method without stating to the patient the probable tediousness and the possibility of stopping short of complete removal. In lupus, the most rapid results may be obtained by the destructive methods mentioned, followed by the Röntgen ray. But Stelwagon believes the Finsen-light treatment, and the treatment by caustic pyrogallol or arsenical salves followed by the Finsen or Röntgen-ray treatment, to be the most valuable. The Finsen treatment is valuable, but it is expensive, tedious, and its application requires a trained assistant; and in many instances the Röntgen ray will do the same and with much less trouble. In late syphilitic ulcerative or nodular eruptions the ordinary mixed treatment is usually quickly successful, but in some instances, and especially when the eruption is seated about the nose or the palm, the malady is rebellious and inunctions must often be resorted to before the disease yields.—(*American Medicine*, April 22, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

Poisoning by Potassium Cyanide.—The minimum lethal dose of cyanide of potassium varies, according to the different authorities, but is generally fixed at from 2 to 5 grains; Bennett reporting two cases with fatal results after taking 2 grains and $4\frac{1}{3}$ grains, respectively. Death does not occur as rapidly in cases of poisoning by potassium cyanide as in cases of hydrocyanic acid poisoning, usually not taking place for from fifteen minutes to an hour after the ingestion of the drug. Cases are reported, however, in which death has taken place in less than ten minutes. Casper-Liman reporting a case in which the drug was taken with suicidal intent by a young woman 20 years of age, death occurring immediately. Valcourt and Haskins mention cases in which death resulted in two and five minutes respectively. The mortality in cases of cyanic poisoning is high, Witthans stating that in 455 cases, 382 or 84 per cent. died. Death in these cases is due to paralysis of the respiratory center, although it would appear that in some cases it is caused by the depressant action of the drug upon the heart itself.

That recovery frequently takes place, even after the ingestion of large doses, is shown by cases reported by Higgins, Wigglesworth, Stevenson, Quintin, Brockett and Gillibrand, in which from $19\frac{1}{2}$ to 50 grains of cyanide of potassium have been taken, the patient in each case recovering. While death takes place more slowly, in fatal cases of cyanide of potassium poisoning, recovery is more delayed in these cases than in those of hydrocyanic acid poisoning. Unconsciousness generally persists from two hours to six or eight hours, Dobson, Quintin and others reporting cases in which the period of unconsciousness extended over this length of time and one remarkable case is reported in which the unconsciousness persisted for three days, the patient not being discharged from the hospital for ten days. In the other cases cited the patients have usually been discharged in from three to four days.

Autopsy has usually shown the left ventricle of the heart empty and firmly contracted, the right containing uncoagulated blood. The stomach is frequently found much inflamed, especially toward the pyloric end. The lips, mouth and stomach at times show evidences of corrosive poisoning, probably due to the carbonate of potassium used in the manufacture of the cyanide of potassium.

The most important factor in the treatment is the promptness with which it is instituted. Immediate evacuation of the stomach and intestinal canal, the administration of cardiac and aspiratory stimulants, artificial respiration, friction of the extremities, and cold effusions to the spine, with the patient in a warm bath, or the use of the alternate hot and cold douche to the spine, offer the best results. Various drugs have been suggested as additions to water in washing out the stomach: hydrogen peroxide, potassium permanganate, ferrous and ferric salt in combination; carbonate of potash in solution or in combination with sulphate of iron and ether. Of these probably the best is permanganate of potash, the use of which is recommended by Kossa and other writers. Witherstone calls attention to the article of Heim, in which the author states that morphine seems to be the antidote to cyanide of potassium, and vice versa.—(McKELWAY, *The American Journal of the Medical Sciences*, April, 1905.)

Treatment of Tetanus.—In the treatment of tetanus prophylaxis plays an unimportant part. Every wound should be treated on antiseptic lines, but this treatment is not sufficient to destroy the bacillus of tetanus, which possesses great resisting power to the ordinary methods of destruction. We know that the bacilli live, multiply and generate their specific poison in the wound itself and in the immediate locality. Therefore our duty is on the first manifestation of symptoms to remove the site of inoculation when possible by the knife, otherwise by the actual cautery or by scraping, and in every case swabbing out the wound with pure carbolic acid. After this, antitetanic serum should be injected under the skin of the abdomen in large doses, 20 to 30 cubic centimeters, and repeated daily for a week or ten days. Cocaine should be injected hypodermically morning and evening, commencing with one-sixth of a grain and gradually increasing the dose according to the severity of the symptoms to one grain chloral hydrate and potassium bromide; 20 or 30 grains of each every four or six hours, appear to me to be the most likely drugs to give beneficial results in producing sleep and relieving the irritability of the motor nerve cell of the brain and spinal cord. Other details in the treatment, such as absolute quiet in a darkened room, the administration of chloroform for relieving severe tetanic convulsions or for passing the feeding tube or catheter, and the choice of suitable aperients, need no comment.—(COLLINS, *The Lancet*, April 15, 1905.)

BACTERIOLOGY AND PATHOLOGY.

Under the Charge of

H. S. OLNEY.

Growth of Cancer.—Bashford thinks too much attention has been paid to the questions of the nature and origin of cancer and not enough to the cause of its limitless growth. All theories of origin have one shortcoming in common—they fail to show how the actual continued cell multiplication is maintained. He attempts to study the various phases in the development of cancer by artificial propagation in mice. The age incidence of cancer varies in direct relation to the absolute duration of life, so that while in man the maximum incidence is after the 45th or 50th year, in the mouse it is after the second year, and hence in that animal if it could be artificially propagated, the whole cycle of development could be studied. He argued that "just as the period of gestation varies from 21 days to 9 months in the case of the mouse and the human in accordance to laws which govern their respective developments, so, if there be stages in the growth of cancer they may also be adapted to the compass of life in different animals and be gone through more quickly for the mouse than for man."

He found that under favorable experimental conditions the growth was of the same nature as sporadic cancer, and was of enormous and apparently limitless amount, and due to a continued proliferation of the parenchyma cells. There is a constancy both in the histology and in the minute cell characters, so that the cell proliferation proceeds by typical bipolar mitosis, and the various forms of irregular cell division which occur in human tumors do not occur, except that at recurring intervals, which coincide with the reappearance of other phenomena, there is a mitosis which distributes exactly one-half the normal number of chromosomes to the daughter nuclei (such as he has previously described in human cancer cells). The balance of evidence is in favor of the growth being interrupted and not uniform and continuous.

The span of life of the individual is not the same as that of the separate organs and tissues, for some organs early attain full development and then disappear; others are only active during adult life, etc. So cancer attacks the various organs at different stages of the individual's existence. Thus the chorion has a short life and chorionic epithelioma appears at an interval after fertilization which corresponds to its old age stage of proliferation. The mammae and uterus

mature slowly and are longer active, and carcinoma is more common during their involution. Chronic irritation hastens the senility of any particular tissue by the excessive cell proliferation induced.

The view that unbounded growth of cancer follows on terminal phases of normal cell multiplication in consequence of nuclear fusion, makes the age incidence of the disease a necessary consequence.—(*The Lancet*, March 25, 1905.)

Morphology of the Tuberculosis Germ.—

Craig thinks that the organism which causes tuberculosis should not be classed as a bacillus, but should rather be placed under actinomycetes, because so many cases exhibit other forms than those of a true bacillus. He has preserved 509 specimens of sputum, most of them being from soldiers invalided home from the Philippines, and he has been especially struck with the diversity of form shown by this organism. He thinks the moisture and heat of the tropics may be responsible for the luxurious growth, and for the wide variation in its morphology, as such variations are seldom met with in temperate climates. He has observed differences in length, breadth, contour and staining reaction, and describes some of the more common departures from the classical type.

1. The streptococcic form, in which stained portions alternate with unstained and resemble a chain of cocci. This is not the same as the "beaded" form, for in the latter the interval between the stained portions always shows a narrow rim of stain connecting them.

2. Clubbed forms, in which one end is enlarged and stains deeply.

3. Budding forms, in which distinct lateral projections or knobs occur in one or more portions of the rod. He found them in fully two-thirds of his cases.

4. Branching forms, in which true branching occurs. The branches develop from the buds seen in the budding forms, and resist decolorization much more effectively than the unbranched forms. He has found them in over 80 per cent. of his cases from the tropics. The branches may in turn bud and develop secondary branches, so that an interwoven mass similar to an actinomycotic growth may be the result. He thinks the name *mycobacterium tuberculosis* is a good name for the germ of tuberculosis.—(*Craig, Medical News*, February 25, 1905.)

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INSTRUMENTAL METHODS FOR THE STUDY OF HUMAN PHYSIOLOGY AND THEIR RELATION TO EXPERIMENTAL MEDICINE.*

WARREN PLIMPTON LOMBARD,
Ann Arbor.

I have lately been reading with great pleasure an article by Lewellys F. Barker, entitled "An Intersemestral Excursion" (*Jour. of the Amer. Med. Assoc.*, xliv., 1905, p. 493 and 734). Although a clinician, he is evidently greatly interested in Physiology. He says: "Physiology stands closer, perhaps, than any of the other so-called fundamental sciences to the practising physician, to whom its relation is that of anatomy to the surgeon." I sometimes wonder whether this opinion is shared by most physicians. I have more than once heard physicians say, "I know nothing about physiology," although it seems to me that they can never examine a case without studying the physiology of the patient. I fancy that the physiology of the sick room, although still physiology, goes by another name.

It is true, however, that the methods of the modern physiological laboratory are strange to most of the older physicians,

because many of these methods have been developed within comparatively a few years, and they cannot be acquired by merely reading. There were no physiological laboratories even in New York city as late as 1885. The first and for a number of years the only physiological laboratories in this country, dealing with the physical problems of physiology, were Bowditch's laboratory at Harvard, and that of Martin at Johns Hopkins. Now we find well equipped laboratories in all of the best medical schools, and in many of them the students are required to take practical laboratory courses in physiology.

Barker would like to see connected with our medical schools a chair of "Pathological Physiology" or "Observational and Experimental Medicine." He says that there are two reasons why it is desirable: 1. That the influence of clinical work on human beings should be felt in the experimental laboratory. 2. That men trained on the experimental side should be brought to the bed-side.

*Read before the Detroit Academy of Medicine, April 25, 1905.

There are three such chairs in Austria: in Vienna, Innsbruck, and Prague, and it is expected that one may be developed in Berlin.

Dock has been doing such work with limited facilities, for a number of years at Ann Arbor, and certainly there will be a strong department of the kind in the University of Michigan as soon as it can be brought about. It is not unlikely that under the influence of Barker such a department will be set on foot at Johns Hopkins.

There ought to be in a medical center such as Detroit a well equipped experimental laboratory with a few hospital rooms attached, where patients could be sent for examination by experts, or where a physician, if acquainted with laboratory methods might go and with the aid of the experts in charge carry on the necessary work. But it may be asked:

"Are not the present methods of physical diagnosis sufficient? They are crude and incomplete. They are almost entirely qualitative, and are such as would not be tolerated in any exact scientific research. Medicine does not claim to be an exact science, but it ought at least to become far more exact than it is. In all forms of scientific work the personal equation of the observer should be as far as possible excluded. Yet in our present methods the physician depends almost wholly on what he sees, feels and hears, and his own condition at the time intrudes itself into every stage of the work.

It is astonishing how much the physician can learn concerning the condition of the patient in spite of the fact that he is forced to work as he does. Suppose there was something wrong in an electric power plant; the furnaces were not supplying

enough energy, the dynamos were not working properly, or something was out of order, just what was uncertain. Suppose that an expert was called upon to tell what was the matter, but was told that he could not go into the building; that he could analyze the coal that went in and the ashes and gases that were given off, that he could test the amount of energy leaving the building as heat and electricity; that he could inspect the outside walls and even put his ear to the wall and listen to the machinery but that he must not go inside. Do you think he would want the job? Such is practically the position of the physician when he is called on to diagnose a case. It is true that the physician can question his patient concerning his sensations, but this is much as if the electric expert asked a stupid engineer what peculiarities the dynamo showed. The answer in either case might be more misleading than instructive. If one is to work under these disadvantages he must certainly employ every available means of ascertaining the condition of the patient.

A large part of the vital activities of the body occur without any external evidence of a type to be detected by the unaided sense organs. We have been forced to form our judgment from a few data, and to draw our conclusions from the facts learned in the autopsy room from previous cases and the information gained by the study of similar processes in animals. Human physiology in the past has been largely animal physiology carried over to men. With the development of new forms of physical apparatus and new methods of physical examination of the human body, we are, however, beginning to obtain fairly exact information concerning the functional activities of the

bodies of men, and the time will come when a book on human physiology can be written.

It was such considerations which made me ask myself what methods has the physiologist today to offer to the physician to aid him in his diagnosis? What instruments and methods for studying human physiology exist, and which of them have been sufficiently perfected to give reliable results? Of instruments and methods there are a multitude which have proved of value in the study of the physiology of the lower forms, and many of these can undoubtedly be adapted to the study of human physiology. I shall weary you with the list, in spite of the fact that I shall cut out a large number of those with which you, as practising physicians, are familiar, for example, the methods employed to measure existing, and relatively stable conditions—e. g., height, girth, form, structure, weight, and temperature; the chemical, histological and bacteriological methods of determining the condition of the various fluids and gases of the body; methods for studying the metabolism of the body, the calorimetric method which has been brought to such perfection by Atwater; the various methods for stimulating sense organs, nerves and muscles to action, and of testing their capacity to respond to appropriate stimuli.

Passing over all these, there is another class of methods which is being rapidly perfected in physiological laboratories, but which has as yet been used but little by the physician. I refer to the graphic and allied methods employed in the study of the changes in the body produced by various forms of muscular activity. The contraction of the muscles which move the limbs, thorax and abdo-

men, of the heart muscle, and of the muscles in the walls of the blood vessels, etc., cause changes of position, form and volume of corresponding and even distant parts of the body, and lead to alterations of pressure in the fluids of the body, and often to production of sounds and changes in electrical condition. Many of these phenomena can be detected and measured with considerable accuracy. Not only may these changes be studied quantitatively, but the time relations of their occurrence may be ascertained to the thousandth of a second and so their interdependence be determined. Such a study to give exact results, requires the use of moving surfaces on which the movements may be recorded, apparatus for gauging the rate of movement of these surfaces, apparatus to measure the extent, strength, direction, and rate of the movements and the amount of the changes in pressure, volume, sound, and electrical condition. Many of these forms of apparatus and methods are most ingenious, and I wish that we were at the laboratory at the University so that I might demonstrate some of them to you.

The surfaces on which the records are taken are plates, moved by a pendulum, a spring, or a vibrating fork. Drums moved by hand, falling weights, clock work, or electric or water motors. The plates and drums are covered with paper, and the record is in ink, or the paper receives a coat of soot, which is scratched off by the writing point, the writing being fixed later by a coat of shellac.

The rate at which the surface moves, is recorded on it as it moves, by electromagnets, actuating levers, and magnetized at regular intervals from clocks, metronomes, vibrating reeds, or tuning forks, which make and break the electric circuit

at regular intervals. The time record is given for any desired amount from a second to five one-hundredths of a second.

The movements of the part to be studied may be recorded directly, by the part touching the surface, or indirectly by means of a great variety of writing mechanisms, e. g., myograph levers, or tambours which transmit the movement to a distance by air transmission. This latter method, in the hands of Marey, led to the construction of a great many mechanisms adapted to record special types of movement, the cardiograph, to record the apex impulse of the heart, the pneumograph, to record the respiratory movements of chest and abdomen, the sphygmograph to record the pulse, apparatus to record the movement of the limbs, of special muscles, of the larynx, etc. The instant that a movement occurs can also be recorded by letting it break an electric current passing through an electro-magnet. The strength of a movement may be recorded by some form of dynamometer, and the amount of work done and the endurance by an ergograph. The amount of pressure of a fluid can be recorded by a mercury or spring manometer, and lately a host of instruments have been devised for recording human blood pressure. They bear the names of their inventors, V. Basch, Mosso, Hill-Barnard, Oliver, Riva-Roci, Gaertner, Erlanger, Janeway, etc. I think Erlanger's is perhaps the best. (The latest form is described in the Johns Hopkins reports VII, 1904, and the same number contains an article by Erlanger and Hooker giving the results of their experiments on human blood pressures.)

Changes of volume of a part can be recorded by the plethysmograph, the part being placed in an air tight chamber, and the movement of the fluid or air in and

out, as the volume changes, is recorded by a tambour, piston recorder, bellows recorder or gas tachygraph.

The use of the microphone allows the time of occurrence of sounds to be recorded. Thus Huertler connected a micriphone, placed on a man's chest over the heart, with an induction coil which stimulated a frog's muscle, which recorded its contraction and so the time of the sound on a myograph drum. A still better method is that of Einthoven, who used a microphone and a capillary electrometer to obtain a record of the sounds of the heart. A photograph of the movements of the column of mercury in the capillary revealed the complex elements which enter into the sound, and these were found to change under pathological conditions.

Every muscular movement, that of the heart for example, is accompanied by an electrical change, and this can be observed with the capillary electrometer, and can be recorded photographically.

Have I tired you with the catalogue? The list is by no means complete, but at least may serve to show that there are many ways of attacking the problems of human physiology, besides those employed by the practising physician.

But you will ask, "How many of these are practical, i. e., capable of being employed by the ordinary physician in his daily practice?" Certainly very few. All of this apparatus properly arranged can be made use of in studying the physiological activities of men, but at present the methods are incomplete and cumbersome. They are capable, however, of being developed into forms which will render important service to the physician. There is a big field of research open here, and one which will some day yield rich fruit.

Would it be of use to the physician if he could get information on such questions as the following:

The relative duration of the systole and diastole of the heart and how this is altered by exercise and other influences.

The changes in the character of the sounds of the heart which may occur under pathological conditions.

The time of the coming of the heart sounds with respect to the instant that the muscle contracts.

The character of respiratory movements, of the thorax and the abdomen.

The exact ratio of respiratory movements to heart rate, and the way the ratio changes under the influence of exercise.

Rate of progression of the pulse wave, as an indication of the condition of the arterial wall.

The exact character of the pressure waves in the artery, what we term the pulse.

The time relation of a venous pulse to heart action.

The influences which are most potent in a given patient to alter the blood pressure.

The capillary blood pressure in a part.

The condition of the central nervous system from the standpoint of overflows from one group of nerve cells to others, e. g., the reëforcements of the K. J.; the effect of reflex and psychic influences on the vaso-motors; the effect of the swallowing center (?) on the heart and respiratory centers; the effect of the respiratory center on the heart centers.

The capacity of the heart and vaso-motors to maintain the blood pressure under varying conditions, e. g., effect of position, exercise, etc.

Whether the normal crossed vaso-

motor reflex to cold is exaggerated or decreased.

The time of a reflex act such as winking.

Reaction times to sights and sounds, so necessary in some trades.

The rate of discharge by the Anterior horn cells to the muscle by a voluntary act. How this is altered by fatigue, tremors.

The capacity of muscles and the central nervous system for long-continued muscular work.

The capacity of a subject to make rapid muscular movements.

The tonus of a muscle at a given time.

An adaptation of the experimental methods at present in use in our physiological laboratories would enable the physician to obtain valuable information on all these questions.

It is especially in those obscure cases diagnosed as functional disturbances, which means that the physician is unable to detect any lesion or any adequate cause for the difficulty, that laboratory methods should be brought in to help the diagnosis.

In a large majority of cases the physician must trust to the body to heal itself. He can help the work along, however, if he understands the physiological condition of the patient completely, and can bolster up the weak sides. More complete means of physical examination would supply information which would help him to do this. The family physician is often consulted with reference to the care of children, and whether, for example the boy or girl should be allowed to take vigorous physical exercise, and if so of what kind. I am afraid the answer is too often a common sense answer based on no very accurate knowledge of the condition of

the child. We know how to study people who are really sick, but we do not know how to study the condition of those who pass for well but who might have better health. That is what we must learn to do if we are to improve the breed.

The day will come when we shall be able to estimate the physiological and psychological character of the individual in a way that we do not even dream of. We have only just begun to study the physiology of men.

HISTORICAL SKETCH OF THE RADICAL MASTOID OPERATION.*

RAY CONNOR,
Detroit.

The study of the ear has been relatively late in arriving at any considerable dignity amongst the other branches of medical lore. It long rested in the hands of quacks alone. Sir Ashley Cooper having been so fortunate as to improve the hearing of a patient, soon had his consulting room crowded with the deaf and was obliged to drive them away lest his reputation suffer with his fellow practitioners. Only thirty years ago more than one famous surgeon was fond of saying "ear diseases may be divided into two classes: those which can be cured by any general practitioner and those which being incurable may be relegated to the tender mercies of the ear specialist." While the development has been all along the line, the two greatest achievements of otology have been in the way of preventing and curing deafness by attention to the nose and throat and in the care of suppurations of the middle ear and mastoid. It is with the last that we are especially concerned this evening.

As Stacke has well said: "Otology is an offshoot of surgery and only in close ad-

herence to it and in true and conscientious observance of its principles is success to be sought for and to be found." The surgery of the temporal bone is peculiar only so far as its anatomy and relationships render it so. It has profited by the advances in general surgery due to the introduction of anesthetics and the principles of asepsis, and general surgeons have contributed largely to the development of the various procedures which have been applied to the treatment of supuration in this region.

Curiously enough the opening of the mastoid was first suggested in 1649 by Riolanus as a cure for cases of occlusion of the eustachian tube. It was not, however, until about a century later that the bone was actually opened, and then for quite a different reason. Petit in 1750 opened the mastoid with a gouge and hammer for the evacuation of pus. At about the same time, Morand seems to have opened the mastoid and drained an intracranial abscess. Quite ignorant of this work in France, Jasser, a Prussian military surgeon, opened a carious mastoid with a probe. His ignorance of the anatomy is shown by his surprise that

*Read before the Detroit Academy of Medicine, May 9, 1905.

fluid injected into the sinus could come out of the nose. The patient was so gratified by the relief from intense pain obtained, and increased hearing that he insisted on having the other ear similarly treated as it had a chronic discharge and loss of function. This was then opened through a healthy cortex by a trochar and a good result obtained. The operation of Jasser became well known and bore his name. The indications were not understood and it seems to have been employed for a time rather indiscriminately to relieve deafness without otorrhœa. The physicians of that day gave rosy reports of their success as the hearing of some was restored and no harm seemed to result to any. In 1791, however, Berger, the King of Denmark's physician, suffering with impaired hearing and a very annoying tinnitus, prescribed the operation for himself. Through the lack of skill of his surgeon or anomaly of his temporal bone, the trochar penetrated the brain instead of the mastoid antrum and the patient died of meningitis in a few days. This closed the vogue of the operation for many years and it was not attempted again in more than half a century. In 1853, Wilde, the great Dublin aurist, whose name still clings to the incision made behind the ear for post auricular abscess, wrote, "as the success attending the procedure must be very doubtful and the hazard very great, it is never resorted to in the present day."

Toynbee, in his celebrated work on the ear in 1860, devotes six chapters to the consideration of the external auditory meatus and but one to the mastoid. This latter is chiefly devoted to the autopsy records of mastoid cases in which no operation was done and the patients died in consequence. Notwithstanding this he wrote in another place: "I have never per-

formed this operation, but I should not scruple to do so in a case where the life of the patient was threatened."

The revival of the mastoid operation came from Germany, although isolated cases were reported in other countries. The mastoid was opened by mallet and gouge by Forget (1849), Billroth (1867) and Rouge (1869). In 1861, Troeltsch perforated the mastoid in a case of acute suppuration of the middle ear which an external Wilde's incision had failed to benefit greatly. Crosby amongst the mountains of New Hampshire opened up three mastoids with a gimlet in 1864 and obtained good results. In the same year Follin reported a successful case in France and Ludwig Mayer in Germany. It was really due to Schwartze of Halle that this procedure was established on its present firm footing. In 1873, he reported a series of 50 cases and four years later 50 more. The operation since then has deservedly borne his name. It was at first performed not only in acute and subacute cases but also in chronic ones and some good results were obtained even in these latter cases. It remains after thirty years as the treatment par excellence of acute mastoiditis requiring operation.

The treatment of chronic suppurative otitis media has long been the subject for discussion. The relative importance of this physical sign has not been generally recognized either by the profession or the laity. Many physicians used to think as little of it as an attack of gonorrhœa or a cold in the head. The appreciation of these so-called minor complaints is getting more and more general as the results of neglected cases are more carefully studied. A few men have long felt the danger of continued suppuration from the

ear. Wilde, in 1853, wrote: "So long as a discharge from the ear exists, we are never able to say, how, when, or where it may end nor to what it may lead." Troeltsch, a few years later, held that a person suffering from a chronic ear discharge should not be subjected to military duty, because he is exposed in the performance of this service to many injurious influences which may cause his life to be in danger. Those shrewd students of mortality records, the life insurance companies, have long held and still do that these cases are not good risks and can only be accepted at an increased premium. As is well known many persons go through life apparently little inconvenienced by the discharging ear they have had since childhood. On the other hand over 80 per cent. of brain abscesses are caused by infections from chronically discharging ears. The otological literature is filled with the reports of cases of intracranial involvement, sinus thrombosis, meningitis, cerebral and cerebellar abscesses arising from chronic otitis.

The treatment of chronic discharge from the middle ear is almost infinitely varied. Into the medicinal treatment, I will not go as the very multiplicity of methods prove conclusively that none are more than partially successful. A fair trial of several weeks or months should be given to the case providing no urgent symptoms are present. Should local treatment intelligently employed fail to relieve the case the question of operation should be carefully considered and presented as fairly as possible to the patient. One of the most important principles of bone surgery is to provide for free, unhindered and spontaneous drainage. This is peculiarly difficult to obtain with the

cavities of the temporal bone. Thus theoretically the focus of infection should be removed in every case by surgical intervention if other means fail. Fortunately certain of these chronic cases are fairly clear in their indications, but a much larger number have to be decided in accord with the experience of the individual operator and cannot be decided according to any fixed set of rules. Where acute symptoms of pus retention occur in chronic otitis media, the indications are absolute for surgical interference. The same is also true when brain symptoms become threatening, but the desirability of interfering before the brain becomes involved can hardly be overestimated. Cholesteatomata can only successfully be treated surgically. The radical operation should also precede operations on the brain for intracranial complications due to middle ear disease. The indications may be much less urgent and still call for operation. Thus the toxemia from a mastoid and middle ear infection may keep a patient in ill-health for years with very indefinite symptoms such as headache, dizziness, vertigo, nausea, gastro-intestinal symptoms, malaise and greatly impaired vigor which clear up completely after the source of infection is removed. Macewen has well compared chronic otitis with chronic appendicitis, although the one occurs in a functionless appendage and the other in a highly specialized sense organ. Both affections are pyogenic. Both are apt to invade neighboring tissues, the peritoneum and the intracranial structures. Both are insidious in their action and tend to undermine the health of the individual. Both tend to precipitate a sudden serious illness which is often fatal. In both an early and complete operation not only relieves the patient from the

depressing effects of the disease but at once removes the possibility of a sudden and fatal termination. In both many lulled into a sense of security by the apparent passivity of the disease and its long duration and arguing from the fact that as patients have recovered from one attack, they are equally likely to recover from another, postpone the operation until the peritoneum in the one case and the brain in the other become involved and a fatal termination is imminent, but then it may be too late to save the patient.

When operative interference has been decided upon some prefer to try an ossi-culectomy before doing a radical operation. This has the advantage that it can be done through the meatus and so requires no external wound. The deprivation from work is also for a shorter time. On the other hand the work must be done in the dark as the attic cannot be seen and the curetting must be done blindly. One can never be sure that all the disease is removed. The practical test of experience does not bear out the hopes of earlier enthusiasts, as many of the cases come back little benefited by the procedure and requiring a more extended operation. It seems, however, to be of service in a small number of selected cases.

It was Küster of Berlin, in 1889, who first censured aural surgeons for doing their work in the dark and who dwelt on the necessity of free exposure of all the cavities of the middle ear during both operation and after treatment. Following out his line of thought, Zaufal and Stacke about the same time devised the radical operation which, with various modifications, has come to stay. The resulting operation is very much the same whether done according to either method as they

each begin at the opposite end of the same job. Thus Stacke begins from the meatus and exposes the attic by removing its outer wall and part of the superior wall of the meatus. Then the aditus is exposed by the removal of the posterior superior wall of the meatus, and thus the antrum opened and cleaned out. Zaufal, on the other hand, goes into the antrum through the cortex and then exposes the aditus by removing the posterior superior wall of the meatus and the outer wall of the attic. The method of Stacke makes the finding of the mastoid antrum comparatively easy and prevents any injury to the lateral sinus arising from an anomalous position which is sometimes found. Zaufal's method, on the other hand, gives a freer exposure and makes the operation a more open one. The cutaneous incision is begun above and about one-half inch before the pinna and is continued in a curve about one-half inch behind the auricle to the mastoid tip. This is extended to the bone and the periosteum and other tissues stripped back until the meatus is well exposed. In his original operation, Stacke freed the cutaneous meatus and stripped the entire canal away from its bony wall. Later he, as well as Zaufal, found that it was sufficient to free the posterior and superior portions of the canal and to leave the anterior and usually the inferior still in place. The necessity of a good light for the rest of the operation cannot be overestimated as well as a good assistant to keep the field dry and free from blood and debris. In this way the entire bone can be laid open for examination and all the disease seen and removed. It is in removing the bridge of bone over the aditus and antrum that the facial nerve is most likely to be

injured, although with a field well cleaned and illuminated it can readily be identified from its relationship to the external semi-circular canal which shows its smooth and whitened structure above and a little behind the fallopian canal in which the nerve lies. The removal of the outer wall of the attic is necessary in order to bring the upper part of the meatus into the same plane as the tegmen tympani and so leave the entire attic open to inspection through the meatus. The object attained by the whole operation is the removal of all diseased tissue and the throwing the cavities of the tympanum, attic, aditus, and antrum into one large cavity which can be seen and treated through the meatus during the entire after treatment. More modifications have arisen in the treatment of the posterior wall of the cutaneous meatus than in any other one feature of the operation. In Stacke's first operations he merely slit the posterior wall and did not suture the post auricular wound. Panse proposed a method by which the posterior wound was immediately sutured and a tongue-shaped flap formed by two parallel incisions along the superior and inferior wall was kept in place by sutures. Körner some years later modified this by cutting into the cartilage of the concha so that the cartilagenous meatus was widened and a better access given to the field of operation for the after treatment. Others have resected portions of the cartilage so as to give even more room.

Perhaps the most important modifications in the last few years are those proposed by Ballance in the use of epithelial grafts in order to hasten the healing, which has been and still is very tedious. In his first communication, Ballance proposed the dividing of the operation into

two portions, one to remove the disease and cure the suppuration and another to heal the wound of the first operation. An ordinary radical operation, according to Zaufal, is first done and the post auricular wound sutured. Then in adults at the end of 10 days to 3 weeks the posterior wound is reopened and the skin grafting done. The grafts are shaved from the arm or thigh and introduced into the bone cavity by the aid of section lifters. If possible one large graft is utilized to cover the entire surface desired, but where this is impossible, several smaller ones can be used, care being taken not to allow them to overlap. The blood and air have to be completely removed from under the graft in order to attain success, and the hemorrhage is one of the reasons why this procedure cannot be carried out at the time of the original operation. The grafts are then covered with gold leaf of great thinness and a strip of iodoform gauze is introduced into the meatus. The posterior wound is resutured. A week later the gauze is changed and 3 or 4 days later the gold leaf can be removed. The epithelial grafts shed their outer epithelium 2 or 3 times during healing. The results as to hearing do not seem to be improved by the grafts, but the quickness of recovery is accelerated provided the grafts take. They may serve to close the eustachian tube, but as this has lost its function, this is rather an advantage than otherwise. In his last communication, Ballance has changed his views somewhat as his experience with this operation has enlarged. He no longer lays such stress on the use of the electro-motor burr in the bone part of the operation, but combines with it the use of the gouge and mallet. While he believes the ideal operation should be completed in one sitting, yet under existing

circumstances he advises still another stage to the two already laid down. This consists in a careful removal of the main portion of the graft on the 3d to 6th day, leaving a delicate layer of epithelium behind. This is the more necessary the thicker the graft inserted. Instead of an average of 3 to 4 months, as is necessary without grafting, Ballance claims an average of 5 to 6 weeks as the necessary time to cure the case from the time of the first operation.

The increase in the popularity of this operation has been enormous amongst aurists not only here but abroad. Only recently one Englishman reported his experience as based on 400 cases treated by operation. The pendulum swings from one extreme to the other. The happy mean between meddlesome interference and a dangerous conservatism is hard to maintain. I have seen patients from a six months babe to a sixty-year woman subjected to the radical operation, and while it may be a little overdone in certain large clinics and by individual operators, still it is not by any means so generally employed as it deserves and promises to be. In no operation is a strict knowledge of anatomy more important or where an overbold rashness may do more harm.

My personal experience with this operation is based chiefly on cases operated on at the Manhattan Eye and Ear Hospital. During my second year's service the operation became very popular and we used to do about as many radical mastoids as simple ones. The half-dozen cases in which I had occasion to do this operation came from the various clinics of the institution. Several of my cases were secondary to Schwartze operations in which the post-auricular wound had failed to heal

and a discharging ear and sinus remained. These healed nicely after the radical operation had been done, although no skin grafts were used to hasten the epithelialization. Another of my cases was a boy of about twelve with a chronically discharging ear and a marked and progressive atresia of the external meatus. Upon examination under an anæsthetic the middle ear was found filled with cholesteatomatous material and a radical operation was advised. At operation the mastoid was found filled with a cholestomata which extended into the middle ear and attic and was causing the closure of the meatus. The entire mastoid had to be cleaned out and a radical operation was then done. A Körner flap was made from the posterior wall of the cutaneous canal and the wound sutured behind. The case healed up nicely and no further trouble was experienced from the atresia. In several of my cases I tried a Wolfian flap taken from between the auricle and the hair line. This is left attached by a pedicle above and includes the entire thickness of the skin. This flap was suggested by Dr. Berens and served both to hasten the dermatization of the cavity and to close the orifice of the eustachian tube, which often gives trouble in the after treatment by keeping up the discharge. In all my cases I was able to close the posterior wound at the time of operation, but I have seen cases where the wound was so large and the amount of dura exposed so considerable as to make it much safer to leave the wound open until granulations have gotten under way and the risk of brain complications past. The danger to the facial nerve is not very great in competent hands. None of my cases showed any facial irritation and only a very few of all the other cases I have seen suffered

from this accident. It is however sufficiently great to demand great caution in working in the neighborhood of the nerve as the result of this mistake is so apparent to all who may see the patient afterwards.

I am frank to admit that an absolute cure is not attained in every case submitted to this operation but the least that is gained is a freedom from the danger of intracranial complications and in the vast majority of the cases the cessation of the discharge. If the hearing is acute before operation, it may be somewhat impaired by it but in those cases where the hearing is much reduced, the operation may not affect it at all or may even improve it. The operation itself is only the beginning of treatment and the final result will depend largely upon the care and thoroughness of the after treatment. Unfortunately it is impossible to tell beforehand what the result on the hearing will ultimately be.

In conclusion, the radical operation is based on the principles of good surgery as practiced in other parts of the body and is the outcome of a great amount of work in several countries and by many workers. In properly selected cases and in capable hands, it has proven of great value in just that class of cases in which the older Schwartze was least indicated. While undoubtedly the technique is complicated and constantly changing in minor details as time goes on, still it is sufficiently satisfactory now to obtain good results. Its growing use should eventually diminish greatly the number of brain abscesses and sinus thrombosis cases coming to operation and autopsy. The education of the physicians of the country must, however, go hand in hand with that of the laity as to the significance and danger of the much neglected running ear.

THE STATE BOARD WORK.*

WALTER H. SAWYER,
Hillsdale.

The law known as the "Chandler Medical Act" came into force in 1899. Previous to that time there had been no organized body intrusted with the supervision and restriction of the practice of medicine within the state. Frequent efforts had been made to draft a satisfactory law, but it had met with so much opposition from the different schools that it could not be passed. Michigan bore the stigma of

having degraded standards of professional acquirement, and for this reason became the dumping ground of other states.

This condition of low standards prevailed when the State Board of Registration in Medicine came into legal existence. While the law of necessity conferred the right to practice upon all those who at the time of its passage had complied with the previous law, and who met its formal requirements, it placed with the Board the power to raise standards by intrusting to

*Read before the Meeting of the Sixth Councilor District Society, at Durand, May, 11, 1903.

it the determination of competent professional attainment.

This was a long step in the right direction, and was followed by another and very important addition in the amendment known as the "Nottingham Act." By this improvement and its interpretation by the Board, it has been possible to make the present standard of professional acquirement equal to, or better than that of any State in the Union, and also it has made it possible for Michigan to take a leading and important part in bringing about a reciprocal agreement with other States.

The present Legislature has enacted a law which makes it possible for students matriculated in recognized colleges, who have passed the first two years of scientific work, to appear for examination in those fundamental courses and get a credit which shall be honored by the Board at the final examination, if presented within three years, with the necessary credentials. This measure was prompted by a request from the students in the medical colleges of the State, which request seemed reasonable and had the Board's approval. It relieves the student from a burden during the last two years and permits undivided attention to be given to the practical work.

In the main, the medical legislation has been satisfactory in that it has accomplished all that was expected. Some difficulty has been experienced in punishing offenders because justice court juries would not convict, in spite of the most convincing evidence of guilt, the local sentiment in favor of the defendant being too strong to overcome.

The Legislature is asked to enact an amendment to the law, increasing the pen-

alty and bringing the offence within the jurisdiction of the circuit court, and thus avoiding the tedious and often unsatisfactory litigation to enforce its provisions.

In January, 1904, the Board summoned to appear before it a number of licentiates, who were responsible for indecently suggestive advertisements in the state papers, to show why their licenses should not be revoked. They appeared and through their attorneys objected to the constitutionality of the law under which the Board was acting and enjoined it from proceeding further. These cases are still in the courts, awaiting decision.

The Michigan Board is the only one thus far that has established a minimum standard of preliminary and technical requirement which is definite. No subject has had more serious attention than the preparatory education necessary to entrance upon the study of medicine. The "Nottingham Act" gave the Board the right to dictate, within limits, what this qualification should be, and in accordance with the law, a schedule of preliminary requirement was prepared. The law recognizes as sufficient qualification, the certificates from such high schools, academies, and colleges as comply with the conditions imposed by the Board. In cases in which an applicant for registration cannot satisfy the Board of this qualification, he may appear before the Board of Preliminary Examiners, chosen because of special fitness for this duty, by the Board of Registration, and given an opportunity to evidence before this auxiliary Board that his preparation meets the demands. Every applicant must file with the Secretary of the State Board of Registration in Medicine his verified credentials, in detail,

upon blanks furnished for that purpose, together with his diploma from a recognized medical school, before he is admitted to examination in medicine. This supervision of preliminary training has necessitated greater care in the acceptance of students by many of the colleges.

To comply with the growing demand for more careful preliminary training and yet abridge the time necessary to a liberal arts degree plus a medical degree, some of the schools are offering combined courses, or giving credit in the medical course for satisfactory work done in such subjects as may be included in the curriculum of both literary and medical schools. While educators are not in accord as to the policy which entrusts any part of the medical course to other than medical schools, yet there is a tendency of the colleges to give credit for good courses furnished by the liberal arts schools; besides, the ranks of the profession can be abundantly recruited by those who are willing to devote full time for baccalaureate and medical degrees. The time is coming when a liberal arts degree will be a requisite, and it is a question whether the combined course is a step forward.

There has been much discussion as to what should constitute a good diploma. While under the law a diploma is used only as an identification credential, yet that diploma must be from a school whose equipment and curriculum conform to the standard established by the Board. While there is a difference of opinion as to what this equipment and curriculum should be, the Michigan Board has insisted that a diploma must have a fixed value, and to this end has established a standard of minimum requirements which has the ap-

proval of the leading colleges and educators of the country. Most of the medical schools are seeking recognition and are cheerfully conforming to the standard required. Each school asking for recognition is furnished a blank upon which is detailed the length of course, the equipment, and the number of hours devoted to each subject, including laboratory and clinical work. As far as it has been possible, a personal examination is also made by some member of the Board. This work has been done without fear or favor and must be a factor for good.

At a recent meeting of the Association of American Medical Colleges, a standard curriculum was adopted which is almost identical with that required by the Michigan Board. This action will materially assist in placing all medical schools on a good basis. The work has now gone so far that any medical school which does not comply with the minimum standard of the State Licensing Boards will have little reason for existence.

This Association also accepted a schedule of preliminary requirement such as the Michigan Board had demanded, and it provided for the inspection of schools. Of the one hundred fifty-four medical colleges in the United States, sixty-six have membership in this body and its action will be very influential in raising standards.

The American Confederation of Reciprocating and Licensing Medical Boards, an organization brought into existence largely through the efforts of the Secretary of the Michigan Board, who is also Secretary of the Confederating Boards, has energetically and effectively labored to establish mutual interchange of licenses between the States. One by one they are

dropping into line and accepting the conditions imposed. The Confederation has formulated and adopted two rules, known as qualifications No. 1 and No. 2, which are as follows:

QUALIFICATION NO. I.

"That a Certificate of Registration showing that an examination has been made by the proper Board of any State, on which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in the State where reciprocal registration is sought, may be accepted, in lieu of examination, as evidence of qualification. Provided, that in case the scope of the said examination was less than that prescribed by the State in which registration is sought, the applicant may be required to submit to a supplemental examination by the Board in such subjects as may have been covered."

QUALIFICATION NO. II.

"That a Certificate of Registration, or License, issued by the proper Board of any State may be accepted as evidence of qualification for reciprocal registration in any other State. Provided the holder of such certificate had been engaged in the reputable practice of medicine in such State at least one year; and also provided, that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in the State in which reciprocal registration is sought, and that the date of such diploma was prior to the legal requirements of the examination test in such State."

Qualification No. I. is essential to any reciprocal agreement, while Qualification No. II. is desirable and is conceded in most instances. Some States have for a longer time had more rigid laws and are not willing to relinquish the consequent advantage. However, when there is a mutual exchange of courtesies under the first condition, an acceptance of the second condition can be expected to follow. We now have reciprocity with Indiana, Wisconsin, Iowa, Kansas, Nebraska, Kentucky, Virginia, and Maryland; and partial reciprocity with Illinois, Ohio, New Jersey, and Maine, and it is reasonable to expect that the time is not far distant when a license in one State shall have full recognition in all.

The day is past when the practice of medicine can be entered upon without the most thorough preparation. The better schools have labored in competition with diploma mills to raise the standard of professional requirement and are now seeing the fruits of their persistent effort. A great many influences have been at work to accomplish the rapid progress of the past few years. The association with well trained men has had its effect not only upon those who have not had the benefit of better equipment, but also upon the laity, who are constantly increasing their conception of the ideal medical man. But beneath it all is the real advancement made in the science of medicine. There are so many more fixed points from which to take bearings that it is no longer a groping in the darkness of mystery, superstition, and empiricism. Every new fact has broadened the field of medicine and made increased demands upon its devotees.

AMERICA'S PART IN THE PROGRESS OF SURGERY.*

BENJAMIN R. SCHENCK,

Detroit.

In choosing my subject—that of America's Part in the Progress of Surgery—I have selected one which I thought might be interesting to all. I believe that too little time is spent in our medical societies on the history of medicine, not perhaps too little in reviewing the achievements of the past but in paying honor and tribute to the men who have laid the foundations on which we have built. We Americans are too apt to glorify the accomplishments of the British, French and German investigators and to belittle the pioneer work which has been done in our own country. It is the fashion to quote from foreign authors and either overlook or regard as insignificant the contributions which have been made to modern scientific medicine and surgery by our own countrymen.

American medicine has had too few historians. We need more men who will write as have Billings, Gross, Osler and Packard, who will search out important facts in the history of American medicine and set them before us in an entertaining and instructive style. There are no greater sources of inspiration than the essays of these great men, essays lauding not themselves, but the staunch pioneers who have gone before.

Although our country is much younger than those of Europe and our universities but babes in comparison with the ancient institutions of the east—institutions having at their command material, accumulated through centuries, and the spirit of

research fostered by years of investigative achievement, Americans, by acquiring the best afforded by the teachers across the water and adding to it work, the outcome of Yankee ingenuity, unhampered by prejudice, if not inspired by precedent, have raised scientific medicine in America to a plane unsurpassed to-day in any country of the world. It may be true that in a few selected lines one may gain more in London, Vienna or in Berlin than in Boston, New York, or Philadelphia but the time has gone by when it is necessary for our young men to go to Europe to gain the best medical education. In no department is this more evident than in surgery. I have seen a majority of the most famous surgeons of the day, have seen them in the surgical amphitheatre and in the class room and I am convinced that, in so far at least as operative surgery is concerned, one need not leave the confines of our own country to see and to learn the best which the world affords.

To no departments of medical knowledge has America made more valuable or more numerous contributions than to those of surgery and operative gynecology. For some years in my reading I have kept notes on interesting historical points bearing on the origin of certain surgical ideas and references to the biographies of the men who were the first to do certain operations, but it was only when I began to search through the literature of the second, third, fourth and fifth decades of the century just closed, that I began to realize how truly magnificent have been the contributions of our

*A portion of a paper read before the Detroit Academy of Medicine, December 13, 1904.

fellow countrymen to surgical knowledge. We are all more or less familiar with the names of Valentine Mott, Ephraim McDowell and Marion Sims but how many of the profession have ever heard of Erastus Wolcott, John Bobbs or even Philip Physick, called by Gross the father of American Surgery?

I know of no pleasanter evening's diversion than to sit down with the earlier numbers of some of our older periodicals, such as the *American Journal of the Medical Sciences* which began in 1820, and trace out the changes in the surgical articles which the advancement of knowledge wrought year by year. In no other way can one, at least of us younger men, so well appreciate the influence which anaesthesia, asepsis and the knowledge of surgical pathology have successively had on surgical thought and work. And in no other way can one so well appreciate the impress which America has made on the surgery of the world.

So in selecting a subject for this evening, I thought that it might be interesting to briefly sketch the dawn of modern surgery in the United States and bring before you, very inadequately, some of the things first done on this side of the water and remind you of the men who did them. The facts are in no wise new nor are they inaccessible, for several papers have set most of them forth—notably the papers of Gross in the *American Journal of the Medical Sciences*, in 1876; of Billings in *Dennis' System of Surgery*; of Dennis in the *Medical Record*, in 1892, and of Tinker in the *Johns Hopkins Hospital Bulletin*, in 1902.

It is not my purpose to review the early history of medicine in America but in order that we may have a glimpse of the conditions under which our pioneers

worked, it will be necessary to go back for a moment to colonial times.

Medicine at this period was in a chaotic state. There were three classes of medical practitioners, the medical missionary, the regular physician and the charlatan.* The former were particularly numerous in New England and the latter in the southern colonies. "At that time," says Jacobi, "medical practice was learned in apprenticeships; young men would serve and study with a practitioner from three to seven years and those who had the means and the ambition of learning went abroad to Leyden, Paris, Padua or Great Britain." It later became the fashion to study in Great Britain so that in 1776 a great majority of the educated physicians were graduates of the University of Edinburgh, the first, according to Billings, being John Moultrie, a South Carolinian, who received his diploma in 1750.

"The first dissection of the human body in America was made in New York City in 1750 and the first course of lectures on anatomy and surgery was given at Newport, Rhode Island, in 1756 by Dr. William Hunter, a cousin of John Hunter and an Edinburgh graduate, while the first regularly organized medical school was established in Philadelphia in 1765, by Drs. William Shippen and John Morgan."**

Prior to 1800, there was only one book on surgery, by an American author, printed in the United States. This was entitled "Plain, Concise, Practical Remarks on the Treatment of Wounds and Fractures," and was by Dr. John Jones,

*Steiner. A Contribution to the History of Medicine in the Province of Maryland, 1636-1671. *Johns Hop. Hosp. Bull.*, August, 1902.

**Billings. *Loc. cit.*

the professor of surgery in King's College (now Columbia) from its commencement in 1767 until his death in 1791. This little book was the *vademecum* of the colonial surgeons during the Revolutionary war.

In 1780 there was only one medical library in the whole country, located at the Pennsylvania Hospital, in Philadelphia, and containing upwards of 250 volumes.

Of the four early medical schools we have seen that the University of Pennsylvania was founded in 1765, and the medical department of King's College (now Columbia) in 1767. Harvard's Medical School was opened in 1783 and the University of Maryland in 1807.

At the close of the Revolutionary war, there were a number of men who had been more or less successful as army surgeons but not one among them, except Dr. John Warren, of Boston, the first professor of surgery in Harvard, can be called in any way great.

Contemporaneous with or a little later than John Warren lived four men of whom Gross says, "It is not probable that America will ever again produce four surgeons of equal renown with Philip Syng Physick, John Collins Warren, Valentine Mott and Benjamin W. Dudley, for the reason that it is not at all likely that an equal number of young practitioners will ever again be placed under equally advantageous circumstances for their development."

Philip Syng Physick was born in Philadelphia in 1768, and after spending four years abroad, during which time he was on intimate terms with the immortal John Hunter and held for the last year, the house surgeonship of St. George's Hospital, began practice in his native city. Just then (1793) the terrible epidemic of yellow fever which cost Philadelphia 4,000 of her inhabitants,

broke out and the young practitioner was appointed physician to the Bush Hill Fever Hospital, where he met, in the course of his service, many prominent citizens. Having this advantage, together with the prestige of four years of foreign study, and the fact that there were but a few men in the whole country of equal surgical ability, would, it might seem, favor his early attaining a large practice. Such, however, was not the case and he became so down-hearted, that for a time he seriously considered giving up the profession and settling upon a farm. "Gradually however this chilling, and discouraging feeling, so often experienced by the young aspirants after fame, wore off and long before he had reached the meridian of life, he stood at the head of his profession, as the first surgeon of the American continent." (Gross.)

He was professor of surgery in the University of Pennsylvania from 1805 to 1818, of anatomy from 1818 to 1831 and died in 1837, aged 69 years. Physick was a fearless and successful operator and a forceful teacher. His contributions to literature are not many.

He was the first to use absorbable ligatures from animal tissues, employing strings of buckskin which he prepared by rolling them on a marble slab and which he carried in his waistcoat pocket or in the rim of his hat. He first advocated the rest treatment for hip disease; described the first case of sacciform rectum; was a pioneer in the reduction of dislocations by manipulation and invented, in 1827, the tonsillotome.

But a few months before his death, he did the celebrated operation on Chief Justice Marshall of Maryland, removing by lithotomy over 1,000 calculi.

"The Father of American Surgery" is a name justly applied to Physick.

While Physick was at the zenith of his career in Philadelphia, John Collins Warren was becoming famous in Boston. This illustrious son succeeded his illustrious father to the chairs of anatomy and surgery in Harvard, in 1815. These he held for twenty-five years and great was his influence both as a teacher and as a writer. Did John C. Warren's re-known rest alone on his part, as operator, in the introduction of anaesthesia his

name would still be found in the "Hall of Fame."

Passing now to New York we find the center of the surgical stage occupied by that picturesque Quaker—Valentine Mott.

The son of a physician, Mott was born on Long Island in 1785; graduated at Columbia; studied with Sir Astley Cooper and began practice in New York in 1810. His fame first became international in 1818, when after successfully tying the innominate artery, a feat never before accomplished, he awoke to find himself the "observed of all observers." The patient lived some weeks but finally died of secondary hemorrhage.

Mott held the chair of surgery successively in Columbia College, in the College of Physicians and Surgeons, after it was merged with Columbia in 1813, in Rutgers Medical College, of which he was one of the founders, and in the Medical department of the University of N. Y.

Mott was truly a great surgeon and did much by his influence on a host of medical students to mould the trend of surgical thought. He is especially famous for his work on the ligation of arteries. It has been said of him:—

"No surgeon, living or dead, ever tied so many vessels, or so successfully, for the cure of aneurism, the relief of injury, or the arrest of morbid growths. The catalogue, inclusive of the celebrated case of the innominate artery, comprises eight examples of the subclavian artery, fifty-one of the primitive carotid, one of the common iliac, six of the external iliac, fifty-seven of the femoral, and ten of the popliteal; in all, one hundred and thirty-eight."

For those days, a wonderful record!

During the first forty years of the last century the great west and the south-west, then beginning to be settled and developed, were without a surgeon of any renown. Recognizing this, Benjamin W. Dudley, a Virginian, who had located in Lexington, Kentucky, gave up his practice and spent four years in Paris and London under the great masters of the day. Returning, he joined in the organization of and taught surgery in the Transylvania University—that meteoric institution which had such an interesting history.

Dudley was looked upon as the authority in his part of the country. His national reputation rests largely upon his skill as a lithotomist. He operated for stone about 225 times and did over 100 cases before losing one. He was a great advocate of low diet and rest in the treatment of tuberculous and other chronic inflammations—"a puke and a purge and a purge and a puke being used alike in tuberculous diseases, affections of the hip joint, spine, etc."

I have thus dwelt on the lives of these four men perhaps rather more fully than a paper of this kind would justify but it was very largely to them that surgery in America owes its beginning. Not but that there were others, notably William Shippen, Wright Post, William Gibson and Nathan Smith, who were almost equally famous in their day. However, each of these four, in his own section of the country was the striking character and throughout a quarter of a century made a great impression year by year, upon large classes of medical students and inculcated the teachings of Hunter, Cooper, Bell and Abernethy, besides imparting the fruits of their own labors.

Let us now review some of the original contributions which America has made to surgery.

In the Exsection of Bones.—Jameson, of Baltimore, was the first to remove the entire upper jaw in 1820 and Deaderick, of Tennessee, the lower jaw in 1810. This latter operation was for the removal of a large enchondroma. Valentine Mott first excised the clavicle for malignant disease and Dr. Dixie Crosby, of Hanover, Vermont, did in 1836, the first interscapulo-thoracic amputation—a most formidable operation in pre-anaesthesia days.

The removal of the coccyx for what is now known as coccydynia, originated with Dr. Josiah C. Nott, of Mobile, although Sir James Y. Simpson often gets the credit for having first suggested it.

In this connection, may also be mentioned the fact that, although Sir Benjamin C. Brodie is usually cited as the originator of the surgical treatment of osteomyelitis, the credit belongs, according to Gross, to Nathan Smith, of New Haven, who advocated it and operated in the latter part of the eighteenth century.

In the Ligation of Arteries.—The innominate artery was first tied by Mott, in 1818, and the subclavian, in its first portion, by Rodgers, a few years later. The latter patient died and this operation was first successfully done by Halsted, in 1892. The first successful ligation of the common carotid was by Amos Twitchell, of New Hampshire, eight months before the case of Astley Cooper, who is generally credited with this operation. The common iliac was first tied in 1820 by William Gibson, then professor of surgery in the University of Maryland.

The introduction of metallic ligatures for vessels is due to Dr. Henry S. Levert, of Mobile, who advocated them after a series of experiments undertaken, under the direction of Physick, while a medical student in Philadelphia.

In connection with the subject of the ligation of arteries, might also be mentioned the fact that digital pressure, maintained for a number of hours by different assistants for the cure of aneurysm was first employed by Jonathan Knight, of New Haven, in 1847.

In Dislocations.—Pulleys and forcible traction were used in the reduction of dislocations until the time of Nathan Smith who "practised manipulation successfully." Physick has already been mentioned in this connection. Tinker says:

"Dr. William W. Reid, of Rochester, N. Y., was the first to make a thorough study of the subject and to show by a series of dissections, experiments and observations the desirability of reducing dislocations by this method." The work of Bigelow, of Boston, on the reduction of the hip is too well known to require mention.

The well known method of diagnosing a luxation of the shoulder from the fact that, with the elbow at the chest, the hand can not be placed upon the opposite shoulder, was original with Dr. L. A. Dugas, a Georgian practitioner. His name has never been associated with this valuable point.

In the treatment of fractures.—I can not do more than give you a list of the devices contrived in America for the treatment of fractures. They comprise (1) the seton of Physick, much used in early times in handling compound fractures, (2) the extension apparatus of Buck, (3) the anterior splint of Nathan R. Smith, (4) the bran dressing of Barton, (5) the contrivance of Barton and Gibson for fractures of the lower jaw, and (6) the introduction of adhesive plaster by Gross.

Before reviewing the achievements in abdominal and brain surgery, I must briefly refer to America's greatest contribution to medicine and greatest gift to the world, that of anaesthesia. To whose credit its discovery belongs has never been absolutely settled. Whether to Wells, Morton, Jackson or Long is a question which will never be answered.

You are all familiar with the controversy. One of the most exhaustive and readable articles on this unfortunate dispute is that of Henry J. Bigelow* of Boston, who was not only present at the first operation in which anaesthesia was used (at the Massachusetts General Hospital, in October, 1846), but was also familiar with the events leading up to this test. Bigelow unhesitatingly gives the credit to Morton. I do not know how familiar you are with the claims of Crawford W. Long of Georgia, which have been ably set forth by Young.** In 1842, Long first operated on a patient who was etherized, a fact which Young seems to have proven beyond doubt. To whomever belongs this inestimable honor and glory, the discovery is an American one and one of which we may be justly proud.

To the surgery of the abdominal viscera, the contributions of Americans have been both numerous and important. Successes have followed successes until there is now no organ to the treatment of which surgery has not been applied. So many have been the suggestions, improvements and contrivances put forth by our countrymen that most of them can only be mentioned in the time at our disposal. I wish to particularly dwell upon ovariectomy, briefly, for the facts in connection with it are well known; upon nephrectomy, cholecystotomy, and appendectomy, at somewhat greater length.

Ovariectomy, which may be said to have prepared the way for abdominal surgery, was first done in 1809 by Ephraim McDowell, who, like Dudley, was a Virginian by birth. After studying with

John Bell in Edinburgh, McDowell located, in 1795, at Dansville, Kentucky. Fourteen years later he did the first ovariectomy but did not publish the case until 1817. Undaunted and undiscouraged by the doubts and sneers of his associates, he operated before his death on 13 cases, eight of which were successful.

During the next thirty years, abdominal surgery was almost wholly limited to ovariectomy.

Regarding nephrectomy, practically all the text books state that it was first done by Simon, in Heidelberg, in 1869. As a matter of fact, it was done eight years previously in Milwaukee, by Dr. Erastus B. Wolcott. The following account of the case is taken from the report which was published by Stoddard, who assisted at the operation.

The patient was a man of 53 years, who had suffered for six years with a large abdominal tumor. On examination, the swelling was found to be semi-solid and to push the abdominal wall forward for about two inches in the right hypochondriac region. An incision was made over it when it seemed that the superior attachment was by a cord about an inch in circumference, running upward, behind the liver. This pedicle was tied off, the tumor removed, and the wound closed. The patient lived fifteen days, dying finally of exhaustion, "brought on by the large amount of suppuration which necessarily followed."

Born in 1804, in Yates County, New York, of intellectual parents, who had come from Connecticut, Wolcott's early advantages were not many. At the age of 18, he began to read medicine in the office of Dr. Joshua Lee, a well-known practitioner of the time in western New York, and at twenty-one was licensed to practice by the Yates County Medical Society. After some years spent as a surgeon to a mining company in South Carolina, he enrolled as a student in the College of Physicians and Surgeons of the Western District of New York, from which institution he took his M. D. in 1833. In 1836, he was appointed an army surgeon and for three years was stationed at Fort Mackinaw. He resigned in 1839 and located in Milwaukee,

*Bigelow. *American Journal of Medical Sciences*, 1876.

**Young. *Johns Hop. Hosp. Bull.*, August, 1897.

where he was in practice for more than forty years.

Tinker says of him:

"Personally, Dr. Wolcott was a man of remarkable physique. He was early noted for his great strength, and when a young man it is said that he could run and jump over a team of horses. He retained his physical powers even to the time of his death.

"He was a man of unusual strength of character and intellectual attainments and made up for the lack of a liberal education by a wide reading. All the records which we have of him specially mention his generosity. Nothing in the way of fatigue or hardship ever prevented immediate attention to a professional call, no matter what the financial standing of the patient might be. At the time of his death (Jan. 5, 1880), thousands of poor people gathered from the city and surrounding country to honor his memory, and the arcade in which he lay in state was choked by the middle and lower classes."

Cholecystotomy.—The mere incision into the gall bladder and the evacuation of pus and stones was done in the 17th and 18th centuries, notably by Fabricius, in 1618, and a century later by Petit, but it remained for John S. Bobbs, of Indianapolis, to perform, in 1867, the operation, by opening the abdomen, as it is done to-day. Time will not allow of a description of the procedure, but it may be found in the Transactions of the Indiana Medical Society for 1868 and in Tinker's article. Suffice it to say that the abdomen was opened, the gall bladder incised, between 40 and 50 stones removed and both incisions closed. The patient was still living in 1899.

John Stough Bobbs was born at Green Village, Pennsylvania, of German parents, in 1809, and at the age of 18, began the study of medicine with Dr. Martin Luther in Harrisburg. He graduated at Jefferson in 1836, and located in Indianapolis, where, on account of his ability, he soon attained a large practice. He was prominent in medical organization, an excellent speaker, a forceful but reluctant writer and a conscientious citizen. He died in 1870.

"He may be truly considered one of the founders of scientific medicine and surgery in

the middle west. As the greatest general surgeon and teacher of his day in that section of the country, as a public-spirited man and soldier, his name will long be remembered in the region in which he practiced."

It seems to me that the names of Wolcott and Bobbs should have more than a local significance.

The events which put the operative treatment of appendicitis on the present firm basis, are still fresh in the minds of many present. Americans have unquestionably done more to bring this about than all other workers combined. I need only recall the paper of Willard Parker (1867), in which he advocated early operation in perityphlitis; the paper of Fitz, of Boston (1886), in which the word appendicitis appeared for the first time; the operations of Sands, of New York, whose work was taken up, when he died, by his former assistant and successor, McBurney. Whether Morton, of Philadelphia, or Sands, of New York, did the first appendectomy I have been unable to decide, both having removed the appendix in the spring of 1887. I believe the enunciation of Ochsner's principles to be the most important advance since the pioneer work on this subject.

In looking back over the past fifty years it is difficult to realize the vast strides which have been made in the diagnosis of abdominal conditions, for, in the middle of the last century, but little was known of some of the commonest lesions. To illustrate this let me read an interesting paragraph from Dr. Emmet's *Reminiscences of the Founders of the Woman's Hospital of New York*. It relates to Dr. Alexander H. Stevens, a surgeon to the New York Hospital and one of the keenest diagnosticians of the day.

"Soon after the hospital was opened I was present at the first consultation. The case was that of a young woman with what was thought to be a movable tumor of the abdomen. Dr. Sims held that it was a fibrous growth connected with the uterus by a slender attachment, and he wished the sanction of the consulting board to open the abdomen and remove it. He made so plausible a plea that at one time it looked as though he would carry the Board with him in favor of the operation. All had spoken favorably when Dr. Stevens arose. He expressed his great interest in the subject, but said that he knew nothing about a fibrous tumor, doubted, in fact, if he had ever heard of one before. He felt every confidence in Dr. Sims and had no doubt that he would be successful, if he undertook the operation. But he protested, in the name of humanity, against such a procedure, for, if Dr. Sims were successful in the removal, it would not be long before every young doctor in the land would be opening the belly of every young woman, to see if she had a fibrous growth. Surely the spirit of prophecy must have hovered over the old man, as he thus had a glimpse into the future."

There is hardly a subject in abdominal surgery to which America has not contributed much. Thus we may claim several excellent methods for the cure of hernia; many contrivances which are of inestimable value in intestinal anastomosis (I need only mention the Senn plates, the Abbe rings, the Murphy button and most valuable of all, the McGraw ligature, destined to make the inventor's name known and honored for all time); the operation for perforation in typhoid fever and the first operation for gunshot wound of the intestine.

In plastic surgery we may be proud of uranoplasty, done in 1843, by John Mason Warren, grandson of the first professor of surgery in Harvard and father of the present occupant of the same chair; we may be proud also of Sim's work on the repair of vesico-vaginal fistula, done in 1852, two years before that of Simon; Pancoast's successful case of

extrophy of the bladder; Emmet's method of trachelorrhaphy and repair of the perineum and the suggestion of Hamilton, 1847, which lead to skin grafting.

In the surgery of the nervous system, mention must be made of Dudley's celebrated cases of trephining for epilepsy; Carnochan's resection of the superior maxillary nerve, proximal to Meckel's ganglion; Hartley's removal of Meckel's ganglion and the first case of the evacuation of a brain abscess, done by Detmold, in New York, in 1849.

Aspiration of the pleural cavity, thoracentesis pericardii, litholapaxy and intubation are all American in origin.

Much more, Mr. President, might be written. Many other names, which will be known for centuries, might be mentioned. Time forbids.

The trend of surgery of the next fifty years will be different from that of the past half century. It is now our duty to study more carefully the conditions which favor non-operative treatment and to learn to recognize more clearly the limitations as well as the benefits of operative surgery. Origination, radicalism, daring and boldness characterized the surgery of the past century. Improvement, conservatism, caution and carefulness will stamp that of the future. Just as the work of our statesmen of to-day is perhaps less brilliant than was that of the fathers who framed the constitution, so will our efforts be less dramatic than those of our surgical fathers. Fewer men will become famous but the work which will be done will be none the less important and the advancement which will be made, will be none the less real.

A CASE OF FAMILY ATAXIA OF THE HEREDITARY-CEREBELLAR FORM WITH NECROPSY.

IRWIN H. NEFF,
Pontiac.

In 1895 the writer published in the *American Journal of Insanity* (January, 1895), a report of thirteen cases of ataxia in adults with hereditary history.

The following clinical summary was then made: (1) Occurrence of a form of ataxia in thirteen persons in four generations of one family with hereditary history. (2) Marked similarity of symptoms in those affected. (3) The onset in all but two cases was between the ages of fifty and sixty-five: The first symptom in one case being noted at the age of seventy-two; the initial symptom in the other case appearing at the age of sixty-eight. (4) The occurrence of insanity in four of the thirteen cases. In all cases the form of insanity was a dementia, differing in degree and corresponding to a dementia resulting from organic brain disease.

The two cases then under personal observation were reported and the history given of the other members of the family similarly affected.

Allusion was made to the fact that these two cases resembled in some respects those reported by Fraser in 1880, and Sanger Brown in 1892. Certain atypical symptoms prohibited a diagnosis of Friedreich's ataxia and the diagnosis of hereditary-cerebellar ataxia did not seem at this time to be justifiable. However, it was believed that the symptoms might depend on a cerebellar lesion. This reserved diagnosis has been verified by the pathological findings in one of the cases reported.

Since the publication of the original report, the two forms of family ataxia have received much attention. A number of cases have been published, and the points of differential diagnosis have been quite clearly brought out. As exemplifying this, it may not be amiss, before reporting the case, to refer to a few of the points of difference between the two forms of family ataxia. The tendency, at present, is to comprise under the term "family ataxia," two forms, namely, Friedreich's ataxia and hereditary-cerebellar ataxia, admitting a difference in symptomatology and pathology, but ascribing to these two varieties one nosological factor, namely, the embryonic character in their origin. Spiller (*Brain*, pt. 4, 1896, p. 588) emphasizes this common factor and furthermore suggests that an infectious exciting cause may be present in some of the cases. The report of Fraser's series of cases in 1880, (*Glasgow-Medical Journal*, 1881), demonstrated the fact that cases exist, resembling in many respects cases of Friederich's ataxia, but showing marked clinical differences. This clinical report was supplemented in 1891, by Nonnes publication of a case, showing a marked diminution in the size of the cerebellum.

Cases reported during the past few years, point quite clearly to the fact that these two types of family ataxia can in most cases, be diagnosed clinically one from the other. The cases reported, however, show that transitional forms may occur, making the differential diagnosis

at times a matter of difficulty. The contrasting and corresponding symptoms, as given by Archibald Church (*Journal of Nervous and Mental Diseases*, page 430), are as follows:

FRIEDREICH'S FORM.

Hereditary spinal ataxia appears usually before puberty.

Choreic movements in upper extremities and oscillations in head and trunk frequent.

Optic atrophy and amblyopia very exceptional.

Tendon reflexes diminished or absent.

Club-foot and scoliosis common.

MARIE'S FORM.

Hereditary cerebellar ataxia appears usually after puberty.

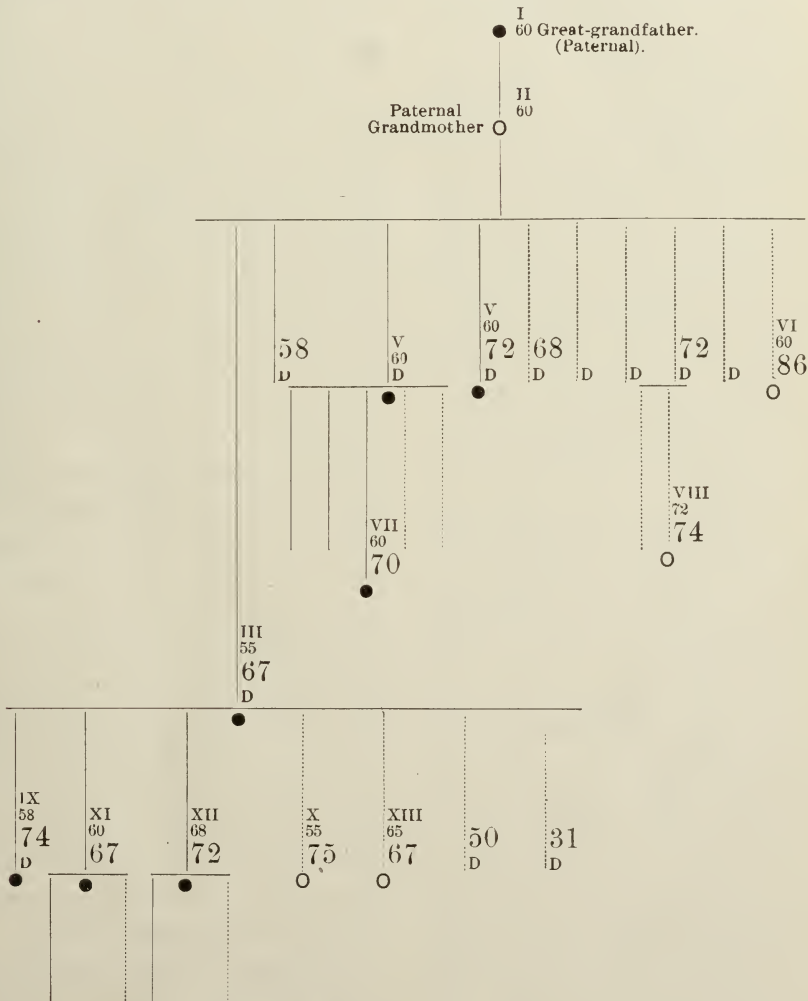
Very common and pronounced.

Common.

Increased foot-clonus frequent.

Exceptional.

The distinguishing features of hereditary cerebellar ataxia as given by Collins (*Treatment of Nervous Diseases*, page 254), are clear and practical. He enumerates the following points of difference:



Continuous lines indicate males.
Broken lines indicate females.
Dots and rings indicate those affected.
"D" indicates deceased.

Small figures indicate age when first symptoms were noticed.
Larger figures indicate present age or age at death.

(1) Uncertain reeling, inebrious gait, occasionally slightly spastic. The patient walks with the feet wide apart by bending forward, head thrown backward, chin elevated and does not watch his feet.

(2) The ataxia is very much less or disappears when the patient is lying down. The incoördination can always be demonstrated even when in this position.

(3) Over action of the mimetic muscles when speaking, or on emotional display.

(4) Hesitating, abrupt, explosive, ataxic, defective speech.

(5) Easily excited, often exaggerated knee jerks and occasional ankle-clonus.

(6) Slight irregular twitching of the eye balls. No true nystagmus. Deficiency of the action of the external recti.

(7) Mental impairment varying from slight stupidity to complete dementia.

As a summary of the essential points of difference between the two forms, the following are the characteristics of the original type of heredo-cerebellar ataxia as given by Marie:

(1) The late development of this form at twenty to thirty years or later.

(2) The lower extremities are first attacked. The upper not being involved until late in the disease.

(3) Normal or exaggerated knee jerks, the absence of sensory disturbances, scoliosis and club foot.

(4) The invariable appearance of visual disturbance, more commonly optic-atrophy.

(5) The cerebellar lesions. The spinal cord, if involved, showing only a slight departure from the normal. A reference to the salient points in the case reported by the author will show that the classical symptoms of the cerebellar form of ataxia were well marked.

In order to make clear the relation of the clinical history to the autopsical findings, an abstract is given of the original report, which is supplemented by the further history of the case.

Mrs. C. Age, seventy-five. Admitted to Michigan Asylum for the insane, July 18, 1893.

An inquiry into history previous to present trouble, reveals no facts of importance. At age of *fifty-five*, patient noticed that there was an inability to *control her muscles in walking*. This gradually increased and one year after onset of trouble, she *was unable to walk in a straight line* and frequently required assistance. At this time she complained of *pains in back and legs*, but these were not severe in character. These symptoms continued until the age of *fifty-eight*, when *incoördination of muscles, arms and fingers developed*. Six months after this, *speech was noticed to be stammering and hesitating*. In the course of a year *she became entirely helpless*, the difficulty in walking, *incoördination in arms*, and *speech difficulty becoming more pronounced*. No mental symptoms were noted at this time. At the age of seventy-three, eighteen years after the beginning of trouble, the patient would occasionally become confused, irritable and had delusions of identity with vague apprehensive ideas, these were persecutory in character and referred principally to her relations. Occasionally fits of depression would develop with pronounced emotional instability. An examination at time of admission resulted as follows:

Head small, but symmetrical. *Marked tremor in facial muscles in masticating and also in speaking*. Muscularity well preserved. Pupils equal and normal, and react. No extra or intra-ocular trouble noticed.

Speech markedly ataxic and articulation slow. Explosive quality well marked. Does not misplace words. Deglutition is performed without difficulty.

Arms.—There is marked tremor, "volitional" in character and also on voluntary movement extreme ataxia is developed. Muscular sense is slightly involved; in attempting to pick up small objects and in buttoning clothes this is exaggerated. Terminal Phalanx of thumb is flexed, but no other deformity is noticed. No atrophy or spasm and no involvement of sensation. Muscular power is good; ataxia is bi-lateral and apparently equal.

Legs.—Pronounced ataxia in walking; unable to walk unsupported. On closing eyes, this is increased and there is a characteristic swaying movement of the whole body. On several occasions, she fell and was unable to gain her feet. In sitting or in recumbent posture there is marked tremor of upper portion of body, increased on volition. No atrophy or spasm, and muscular sense is normal, although slight dulling to touch is noticed on inner sides of both legs extending from knee to ankle. This, however, could not be accurately localized or determined. Sensation is delayed, probably dependent on mental condition. No deformity. Emotion always caused an exaggeration of her symptoms.

Reflexes.—Knee jerks active, slight right ankle clonus, no patellar clonus. Knee jerks transferred. Reinforcement has no obvious effect. Muscular and superficial reflexes active all over body

Psychical Examination.—Slight irritability, mentalization is slow, but she always displays a full realization of her surroundings, converses quite rationally on many subjects and conversation is

coherent. No delusions or sensory perversion noted. Evidently a condition of terminal dementia.

Electrical Examination.—There is increased faradic excitability in muscles of face, arms and legs; otherwise reactions are normal.

During September, 1893, intermittent twichings of both eye-balls could be noted on fixation. This symptom was, however, inconstant. Articulation was then markedly ataxic and somewhat explosive. The difficulty in walking had increased and she was unable to walk without assistance. Patient had several attacks of *vertigo*, during which she fell, but there was no loss of consciousness. After attacks, complained of headache which gradually subsided. It was believed that these attacks were incidental to arteriosclerosis which was quite pronounced. During 1894, the following clinical notes were made:

Pupils were somewhat contracted, but reacted normally to light and accommodation. No extra or intra-ocular paralysis. The right eye has small striæ through center of lines. Optic disc shows beginning atrophy. There is decided limitation of visual field. Vision 20/100 with plus 3.50 D; can read No. 24 Snellen at sixteen inches. The lens of left eye has a small line through the center, retina and optic disc normal, with only slight limitation of visual field. Vision 20/70 with plus 3.50 D; can read No. 20 Snellen type at sixteen inches. Tremor of facial muscles were more pronounced and a coarse tremor was observed in tongue. During the following year a note was made to the effect that "the symptoms are now exaggerated, speech is now pronouncedly ataxic, and tremor in tongue is increased." The reflexes were not as active as form-

erly, but were present in entirety. The atrophy of right optic nerve has increased. Patient had several attacks of exquisite pain in muscles of back that were quite persistent and resistive to treatment.

During the years 1895 to 1898, there was practically no change in character of symptoms. Both the physical and psychical stigmata were constant, and showed no variation in intensity or degree.

The following clinical note was made during March, 1898: "Motor symptoms: Patient is unable to walk but a few steps without assistance, and remains in bed. Has a fair amount of strength for her age. All movements, especially those of the face, tongue and upper extremities are impaired by incoördination, and this symptom is often exaggerated to such an extent that it appears like a course tremor. There is a fine tremor present while the muscles are at rest. Her movements are choeric in character. Articulation is performed with difficulty, by means of this. The muscle reflexes are normal—the reflexes of the triceps are normal—both knee jerks are slightly increased—reinforcement has no obvious effect—plantar reflexes present—pupillary and other organic reflexes are normal."

"*Sensory*—Pain is absent—paraesthesia is absent. There is a slight dullness of general sensation, probably due to senile changes. Patient is quite deaf and rapidly failing in vision. Muscular sense is slightly impaired."

"*Trophic*—There is no muscular atrophy—there is the normal change in bony contour. The skin, hair and nails present the usual changes, incidental to old age."

"*Mental*—At times the patient is slightly depressed, but on the whole is as cheerful as her condition warrants. There is at present no evidence of delusions, hallucinations or illusions. Her disposition is very pleasant. During the fall of 1898 a general wasting of muscles of legs was noticeable. An attack of capillary bronchitis supervened, from which she recovered."

From this time until a few months before death patient remained practically in the same state. However, there was a progressive asthenia, shown principally in an impaired nutrition and gradual loss in weight. Two months before death complained of perverted taste and refused to take food. Later complained of pain in chest and sleep was interrupted. During March, 1900, there was marked oedema of feet and ankles, due to circulatory interference. This symptom increased, and she died of exhaustion, April 6, 1900.

Pathological report by Dr. Theophil Klingmann, Ann Arbor, Mich. There was found sclerotic tissue in the middle cerebellar peduncle and in the medulla. The olivary bodies and other relative fibers were atrophied. Sclerotic tissue was found in various parts of the white matter of both hemispheres of the cerebrum, irregularly distributed. Patches of sclerosis were found in both optic tracts. There was marked arterio-sclerosis in all the vessels of the brain. The spinal cord was similarly involved. The patches of sclerosis were small, but quite numerous.

Microscopical examination of affected tissues showed marked degeneration of nerve fibers and overgrowth of connective tissue.

Therapeutic Notes.

CAFFEIN IN TREATMENT OF DIABETES.

—It is recommended to overcome fatigue, as it acts as a general tonic to the heart and kidneys. It is also of service in grave pneumonia for old people and in cases of adynamia.

℞ Sodii benzoatisgr. xiv
Caffeinægr. xxx
Aquae destil.dr. iss
M. Dissolve with heat.

Sig. Ten drops hypodermically four to five times a day.

If a stronger solution is needed, the following can be used:

℞ Sodii salicylatisgr. xiv
Caffeinædr. i
Aquae destil.dr. lss
M. Dissolve by heat.

Sig. Ten drops hypodermically three or four times a day. (*Jour. A. M. A.*, May 27, 1905.)

THIOCOL IN TUBERCULOSIS.—It is one of the best of the creosote preparations. In intestinal tuberculosis its use in several cases brought about a normal condition and number of stools in about two weeks. In laryngeal tuberculosis the author has used thiocol internally and locally as an insufflation in combination with borac acid and cocaine in a few cases with uniformly good results. This preparation is an important addition to our amamentarium since it is pleasant to take (given in orange syrup), does not disturb the digestion, and when given early in pulmonary tuberculosis, before much destruction of tissue has taken place, exercises a favorable influence upon the inflammation, lessening the secretion, cough, fever and hyperidroses and increasing the weight. The dosage is $7\frac{1}{2}$ grains four times a day. (*Szaboky, Wiener klin. Wochenschrift*, 1904, No. 42.)

VARICOSE ULCERS TREATED WITH PEROXIDE OF ZINC.—Beurmann has employed peroxide of zinc in powder and as a 20 per cent. ointment. This is applied to the ulcer and covered with sterilized gauze which is left on for three to six days. In all cases the secondary infection of the ulcers disappeared and granulations and cicatrization developed quicker than by other methods. (*New York Medical Journal*, May 27, 1905.)

HICCOUGH.—Robin, in *Med. Press*, recommends the following combinations in relieving hiccough:

℞. Picrotoxingr. i
Alcoholis q. s.
Morph. hydrochlorgr. i.
Atropinæ sulphgr. 1/5
Ergotingr. xv
Aque laurocerosi5iii

M. Sig.: Five drops four times a day. And

℞. Magnesiae (calcined)gr. xxx
Sodii bicarbgr. xx
Codeinægr. 1/5
Bismuthi subnitgr. xv
Pulv. cretægr. xv

M. Ft. chartula No i. Sig.: One such powder three times daily.

ACUTE PRURITUS.—M. Gaucher, in *Amer. Med.*, recommends that patients suffering from acute pruritus shall be placed on a strictly milk diet at first and later a milk-vegetable diet. To calm the itching he recommends acetic acid lotions, followed by ointments of menthol and guaiacol, 1 to 2 per cent.

The following ointment is recommended:

℞ Guaiacol
Menthol, ããgr. xv 1
Lanolini5iiss 100

M. Ft. unguentum. Sig.: Apply locally morning and evening.

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Editorial.

"COME INTO MY PARLOR SAID
THE SPIDER TO THE FLY."

It is profitable to look at ourselves through another's eyes, or as Burns puts it:

"Oh wad some power the giftie gie us
To see oursel's as others see us!
It wad frae monie a blunder free us,
And foolish notion."

The picture suggesting this thought was published in the advertising columns of the *Medical Record*, May 13, 1905, page 44. It reads thus: "The practice of refraction is the most profitable adjunct to the physician's general practice. We teach you all about it, also advanced ophthalmology by correspondence. All who take our course are entitled to and receive a diploma from a well known chartered college of ophthalmology. Degree "Dr. of Optics." (From a late advertisement of a chartered college of ophthalmology, we learn that the course lasts six weeks, and costs \$7.50.)

This advertisement in the columns of the *Medical Record* shows that the college expects to attract readers of the *Record*—mainly licensed regular physicians. It appeals to their thrift in several particulars, viz.: 1. It is a profitable adjunct to their general practice. 2. It can be learned without leaving home. 3. The degree of "Doctor of Optics" is given at

the end of the course. 4. From an advertisement in an optometry journal we learn that all this is cheap—seven dollars and fifty cents.

Primarily these colleges were intended to fit opticians to practice ophthalmology. Now they are advertised to regular physicians, to teach them "the practice of refraction" and advanced "ophthalmology."

Doctors have been duped by promoters of "salted mines," "fake manufacturing establishments," "rubber plantations," "watered stocks," etc.; robbed of their hard earned savings, but that they should be regarded sufficiently hungry to bite at this proposition, indicates that outsiders look upon doctors as ignorant in their own field, viz.: "ophthalmology" including refraction. That physicians, colleagues of Von Graefe, Donders, Bowman, Agnew, Williams, Knapp, etc., should be asked to learn ophthalmology from opticians, peddling diplomas for seven dollars and fifty cents, teaching that most intricate science and art by correspondence within six weeks, through the columns of a regular medical journal, shows how low the laity esteem the medical profession.

That any reputable medical journal would publish such an advertisement shows that for money it is willing to publish regularly a standing insult to every educated physician.

Soberly there must be some basis in the estimate placed by these colleges of optometry and proprietors of medical journals, upon the profession. They must have found compensation by some doctors, seeking personal gain through such sources.

With ophthalmological hospitals and schools, scattered in every large medical center over the country, it would seem

that all doctors desiring to qualify themselves for ophthalmological work, would utilize these advantages. True they call for longer or shorter absence from home; they cost more than seven dollars and fifty cents; and the really good ones far more than six weeks, but they give some actual basis on which to do good work. They show that the practice of refraction is one of the most laborious, complicated, and difficult fields of medical practice; and that competence in ophthalmology demands as a foundation the broadest knowledge of medicine and surgery, and a superstructure, of long training in delicacy of perception of slight variations from physiological function, in minute structures; a quickening of sound judgment, and a fineness of manipulation, only attained by actual experience with clinical material under the guidance of a competent instructor. He who cannot unravel the relation of damaged, or deformed eye structure, to the general nervous system, or who cannot read in the eye evidence of disease in distant organs, is quite unworthy the name of ophthalmologist. It cannot be too strongly urged that as druggists are for the compounding and sale of physicians' prescriptions, so opticians are for the adjustment of spectacle frames, and fitting therein the lenses which ophthalmologists have prescribed.

This is a long distance from the opticians advertising to teach physicians ophthalmology.

PARATYPHOID FEVER AND CLOSELY ALLIED INFECTIONS.

Herbert Fox in a recent publication* very nicely states some of the more recent

facts in regard to the "Intermediate" group of organisms:

Buxton suggests that the following classification for all members of the intermediary group (except bacillus dysenteriae) between the bacillus coli and bacillus typhosus: 1. Paracolons causing no typhoidal symptoms in man, composed of many different members but culturally alike. 2. Paratyphoids causing typhoidal symptoms in man and subdivided into type "A" (those cultures distinctly unlike the paracolons) and into type "B" (those cultures resembling paracolons but a distinct species).

Paratyphoid fever differs from typhoid fever in a shorter invasion stage and rise of temperature; shorter or absent period of continued fever; and marked diurnal remissions of temperature, much deeper than enteric and without periodicity. An absence of the Widal is suggestive, if it persists in reasonably high dilutions.

The duration of paratyphoid fever is on the whole shorter than typhoid and the cases where type "B" was adjudged the etiological role, this fact is more striking than in the type "A" cases.

The general findings of the type "A" cases are nearer to typhoid than type "B," the latter presenting a picture more like septicaemia.

The complications of type "B" infections are more numerous, more purulent and the course is more fulminating in these cases.

The causal germs belong to the intermediates of the typhocolon series, the type "A" being nearer the bacillus of Eberth, while type "B" approaches the meat-poisoning group.

Antityphoid serum will clump the paratyphoid "B" at the same time as the bacillus typhosus, sometimes even in

**University of Pennsylvania Medical Bulletin*, April, 1905.

higher dilutions, so that a positive reaction of a patient's serum to both bacillus typhosus and paratyphosus type "B" even if the latter be in higher dilutions, will not permit a diagnosis. On the other hand, only twelve times in 94 cases of typhoid fever did the serum react with type "A" paratyphoid, so that a positive reaction with type "A" and not with the bacillus typhosus may be taken as nearly a proof of the existence of an "A" paratyphoid infection.

It seems probable that there must be some other factor responsible for coagglutinations than an increase of the agglutinins normally present in the blood.

The best proof of the existence of a para infection is the isolation of the bacterium, the saturation test and the bacteriocidal action.

A NEGLECTED BRANCH OF MEDICAL TRAINING.

Amid numerous flourishing specialties, that of "good manners" has been sadly neglected. Yet a doctor's success, and that of medical organizations, is largely conditioned on the "manners of the individual."

Formerly the basis of membership in the American Medical Association was the "manners" taught by Percival in letters to his son just entering the medical profession. In a modified form they are still commended to the favorable consideration of physicians.

While some sort of manners have been a necessity to physicians in their intercourse with colleagues and patients, there has been no exhaustive study of the subject and so no universal standard. In most communities the most forceful phy-

sician set "the pace." Something of homogeneity has followed the increasing practice of frequent commingling of physicians in large associations. But this is still imperfect, as he learns who moves from one city or state to another.

Professional manners have three distinct relations, first to other doctors; second, to the community, and third to the patients of doctors. The young doctor comes into the community as a teacher of individual and community health, and all that relates thereto—as such he is apart from others and on a different intellectual plane—a fact which gives distinctive color to his manners.

No conscientious physician escapes great perplexity, in many relationships thrust upon him by novel situations, and when too late sometimes regrets the course adopted. Not a few have met a Waterloo because ignorant of good manners. Others have failed to make a favorable impression on fellow doctors, on the community, or even their own patients—so drifting to personal ruin, and professional disgrace.

In large degree professional bad manners, arise from defective college training. Few colleges make any pretence of training their students in "good professional manners;" many provide teachers with offensively bad manners, so that the wonder is that so many graduates acquire "good manners."

Medical colleges should provide teachers with model good manners, so that students might absorb them by daily contact. More than is generally believed the teacher's manners are wrought into the texture of the student's life.

Second, the college should provide an adequate course of instruction, the teacher of each separate sort of practice, combin-

ing his own studies, with those of his predecessors, so making an "up-to-date" course.

Third, the college should require a final examination on "good manners" ere conferring the degree of doctor of medicine. State Medical Examining Boards could materially assist in this propaganda, by requiring of applicants for a State license, an intelligent knowledge of "good manners."

Lastly, medical societies would do well to promote this part of "medical sociology," as their efficiency and very existence are intimately allied to the reign of "good manners" over each member of the medical profession.

A CONGRESS ON QUACKERY.

Quackery has always existed but never flourished more luxuriantly than at the present time. One form no sooner languishes than a dozen sprouts arise, each more noxious than the parent stem. No country is free from its ravages, no people escape its infection. One form appeals to the ignorant, another to the refined and cultivated. Its scientific study has never been undertaken, though it would seem as worthy a subject for investigation as the "great White Plague."

From the *St. Louis Medical Review* we learn that a Congress on Quackery opened in Paris May 8th. Its program gives twenty-five subjects for discussion thus: "Illegal practice of medicine by bone-setters, sorcerers and empirics magnetizers and clairvoyants. Facts as to illegal practice of medicine by lay people, or clerics under pretense of charity. Illegal practice of medicine by members of the societies for the aid of sick and

wounded; by nurses, manicures, pedicures, barbers, hairdressers, pharmacists, herbalists, bandagistes, opticians, electricians, dentists, foreign doctors, medical students, sanitary officers, massotherapeutists, etc., etc.; doctors who overstep the privileges conferred by law by covering shady enterprises with their diplomas; the part played by the lay press in the matter of illegal medical practice; medical pharmaceutical advertising by persons who do not possess a medical diploma; illegal and charlatanic practice of medicine by advertising; how the public should be warned as to the danger of illegal practice; social causes of illegal medical practice; critical examination of medical practice law; action of medical syndicates; creation of a central office for the repression of illegal medical practice."

These topics cover a wide field, but in the United States many other things need considering. We have all the infections of the profession here given and more.

We have devoted much energy to the searching out and repression of infections undermining the health and prosperity of the laity, as shown in organized Health Boards, sanitary movements, etc., etc., heating, lighting, ventilation, school building and all arrangements by which healthy men and women may emerge from the state schools. All this is well, but this Congress on Quackery suggests the query, have we done all we could to free the medical profession from the infections which sap its strength?

Have we ever made any systematic exhaustive study of these infections with the object of reducing their number and limiting their ravages. Occasionally an individual has published a brief study of a single infection that had forced itself upon his attention, but it does not appear that

any great move was started that materially diminished its blighting force.

The questions involved may all be classed as medical sociology—an undeveloped branch of medicine. It is suggested that medical organizations, small and great, arrange to study the field belonging to each, and provide means for enforcing their findings, to the end that wholesome, healthful activities replace the noisome pestilence of quackery.

County Society News.

GENESEE COUNTY.

The Genesee County Medical Society held its regular meeting April 25, 1905, at Flint. At the request of the State Nurses' Association, the Bill pending in the Legislature, being an Act to Provide for the Examination, Regulation, Licensing and Registration of Nurses, was unanimously adopted.

J. R. G. Manwaring read a paper on "Flat Foot."

Abstract:

Often overlooked in diagnosis and called by other names as "Rheumatism," "Neuritis," "Neuralgia," or some form of "Arthritis."

Anatomy of Foot.—One long arch, the longitudinal, and one shorter, the transverse or anterior. In walking the foot tends to flatten, get broader, lengthen, and to rotate outward as in valgus. This is prevented by the shape and relations of the bones, fibrous structures, and strong muscles. If any of these are diseased or impaired then trouble begins in the foot.

Etiology.—Indirect causes are wrong habits of walking or standing, improper footgear, occupations requiring much standing, and weak neurotic tendencies in the individual. Direct causes may be or may not be found, but usually the symptoms date back to some traumatism of the foot or leg, a preceding inflammation of the parts, rapid increase in weight as in middle aged women, prolonged illness, often typhoid fever or complicated pregnancy. It may accompany paralysis of the leg.

Symptoms.—Pain is the first noticed. It may be anywhere in the foot or even in the leg, knee, or hip. Aching and cramping of the muscles are frequent from overwork. Tenderness about the

arches and under the metatarsal heads if the transverse arch is involved as in "Morton's Disease," comes. Sensitiveness along the nerves also occurs. Swelling either simple or inflammatory is found sometimes. Limitation of the joints results from the inflammation. Atrophy of leg muscles is not unusual. Alterations in the gait are noticed. The arch may have changed but little or may be broken to any degree. When the anterior arch gives way the foot is broader, and there is a callous under the front where the central groove should be. Imprints of the foot may show nothing.

Course.—In mild cases where only a temporary deficiency has occurred, recovery may be complete. Those with more chronic conditions rest and change in occupation may relieve. If not treated they may get worse until almost complete disability arises or the enforced rest may keep the disease at a tolerable stage.

Treatment.—In mild cases, massage, applications of heat or cold, adhesive strapping, bandaging, or temporary pads in the shoe may be all that is necessary. If not then a plate properly adjusted for support of the breaking arch is necessary. Best made over a plaster model of the sole corrected somewhat. This should be worn until tolerance is established. If active inflammation is present then plaster dressings are to be used until this all subsides and then a plate can be fitted.

Results of Treatment.—About one-third recover entirely from the symptoms, about one-eighth have no relief, and the rest are more or less improved. If the patients would carry out the instructions always the results would be better. (*Blodgett.*)

H. R. NILES, Sec'y.

INGHAM COUNTY.

The Ingham County Medical Society met in Leslie at the residence of F. L. Seger, May 17, 1905. Most of the physicians were accompanied by their wives. At noon an elaborate buffet luncheon was served by Mrs. Seger.

The following resolution was adopted:

"Resolved, That copies of all articles appearing in the daily press in this county relating to members of this society shall be placed in a scrap book which shall be kept on the secretary's desk for the inspection of members. All articles appearing between meetings of this society shall be read at each meeting, and any members whose names shall appear therein will have the privilege of attaching thereto a written explanation."

L. ANNA BALLARD, Sec'y.

WASHTENAW COUNTY.

The annual meeting of the Washtenaw County Medical Society was held yesterday and was one of the most profitable meetings ever held in the history of the society. It was marked by the presence of a representative gathering of the Jackson County Medical Society and many of the visitors were accompanied by their wives and lady friends. The business session was held in the morning and at this time officers were elected as follows: President, J. A. Wessinger; Vice-President, Roger S. Morris; Secretary-Treasurer, John William Keating; Board of Directors, Conrad George, Sr., Ellen B. Murray, Ypsilanti, F. H. Smith, Willis, Geo. E. Sanford, Saline, A. G. Mesic, Milan.

In the afternoon a clinical session was held and was attended by the ladies. From 1:30 to 3 o'clock, Dr. Dock conducted a medical clinic and from 3 to 5 a gynecological clinic was held by Dr. Peterson.

The following physicians were elected to membership: E. E. Butterfield, J. W. Vaughan, Catherine Crawford, Ann Arbor; Charles Woodbridge, Saline; Chas. F. Kapp, Manchester.

J. W. KEATING, Sec'y.

Medical News.

In June, 1904, Jan Bakker, administrator of the estate of Steven Bakker, deceased, brought an action against Doctors D. Emmet Welsh and Ralph C. Apter, in the Superior Court of Grand Rapids, to recover damages. Their cause of action was stated in two counts.

The first count in their declaration, in substance, was Steven Bakker, deceased, was of the age of seventeen years, and lived and resided with his father, Jan Bakker, and the father received the benefit of the services and earnings of the said Steven Bakker, deceased. That on the 24th day of February, 1904, the defendants, without the knowledge or consent of the father, undertook to remove a tumor from the ear of the said Steven Bakker, and to effect such removal the defendants administered chloroform in such quantity, and in such manner as to fully overpower and cause the immediate death of the said Steven Bakker.

The second count in the declaration averred that, without the consent of the father, the defendants took the deceased Steven into the operating room of Butterworth Hospital, and admin-

istered chloroform to the deceased in a careless and negligent manner, without the exercise of due care and caution, and in an overwhelming quantity, and in such negligent manner, and in such excessive and unreasonable quantity as to fully overpower and forthwith cause the death of the said Steven Bakker.

Both counts averred that the patient was in perfect health.

The case was tried on the 19th, 20th, and 22nd days of May, 1905, by the Judge of the Superior Court, who instructed the jury that the plaintiff was not entitled to recover under either count. The following is the charge of the Court:

THE COURT: Gentlemen, from the investigation I have given this case I have determined not to submit it to the jury, and I will state briefly my reasons for that action: When a case is brought in Court the plaintiff states his cause of action through his attorneys in what is known as the declaration, and this declaration contains what is known as two counts.

In the first count of the declaration the injury complained of is that this young man was a minor and that it was known to the defendant Welsh that he was a minor and that it was his duty to inform his parents before entering upon this operation of that fact and get their consent before so entering upon this operation.

The second count charges what is known as malpractice or the want of skill in the operation and that he died by reason of an improper administration of an anæsthetic.

These issues are met on the part of the defendant by the pleadings, in this case called a plea, and that makes the issues in the case which go to the jury for trial. If there is no conflict in the testimony it simply depends on whether the claim made by the plaintiff and admitted in the evidence makes out a case in law.

After listening to the testimony in this case in regard to the second count the Court had no difficulty in determining that there could be no recovery on the second count; it appears to the Court in this case that there was no malpractice, no want of skill exercised and nothing left undone that modern skill and science could provide, but it was one of those unfortunate circumstances that will occur notwithstanding all the precautions that may be taken; but on the other count the Court has been very much in doubt, and there has been no decision brought to the attention of the Court that gives any assistance, as to whether it was absolutely necessary that the consent of the parents should be obtained before entering on this operation, but in a careful examination of the pleadings and the law so far as I have been able

to make it, the Court is satisfied that a cause of action cannot be based in a case of this kind entirely upon a want of consent; the want of consent of the parent is not the moving cause of injury, the operation itself is the cause, and therefore taking the testimony to be true throughout the case introduced on the part of the plaintiff by every witness, it has seemed to me that the law does not give a cause of action, and therefore with that view of it there is nothing to submit to the jury and I shall be obliged to instruct you to render a verdict of no cause of action, which will be recorded by the clerk without your retiring.

The thirteenth annual meeting of the Arizona Medical Association was held at Prescott, June 1-2, 1905.

The Association of American Physicians elected the following officers at Washington, May 17, 1905: President, Frank Billings, of Chicago; Vice-President, F. Kennicutt, of New York; Secretary, Henry Hun, of Albany; Recorder, Solomon Solis-Cohen, of Philadelphia; Treasurer, J. P. Crozer Griffith, of Philadelphia, and Councilor, T. Mitchell Prudden, of New York.

The claim for \$100,000 for medical services by L. C. H. Ziegler, of Chicago, against the estate of Harriet McVicker, widow of the theatrical manager, was disallowed by Judge C. S. Cutting, of the Probate Court, who held that the claim was excessive and instructed Dr. Zeigler to submit a modified bill.

Recently a woman died in St. Louis, Mo., the cause of death being described as bronchitis and pulmonary hemorrhage. The body was embalmed and shipped to Indianapolis for burial. Advices from Indianapolis state that the undertaker who took charge of the body there became infected with hemorrhagic smallpox and that a number of people who attended the funeral have developed smallpox. The undertaker who embalmed the body in St. Louis has since developed hemorrhagic smallpox from which he died. The local Board of Health called the attending physician to account, but he claims that there were no signs of smallpox in the case. The women who dressed the body state there was no eruption on it, but the Board at Indianapolis claims the body showed signs of hemorrhagic smallpox when it was exhumed.

Miscellaneous.

CHANGE IN MEMBERSHIP.

May 15th to June 10th.)

NEW MEMBERS.

D. K. Andrews, Mancelona, Mich.
G. F. Baugh, Lansing, Mich.
C. H. Brucker, Lansing, Mich.
C. D. Chapin, Columbiaville, Mich.
H. B. Clark, Mancelona, Mich.
J. B. Dodge, St. Johns, Mich.
F. C. Dunn, St. Johns, Mich.
R. J. Dunn, Port Huron, Mich.
J. A. Ferguson, Rudyard, Mich.
V. F. Huntley, Mantion, Mich.
A. Jeffries, St. Johns, Mich.
D. H. Macpherson, Fowler, Mich.
A. H. Miller, Sault Ste. Marie, Mich.
H. B. Mills, Grand Rapids, Mich.
J. H. Mosley, Mancelona, Mich.
A. T. Parrish, Ovid, Mich.
C. B. Porter, Elsie, Mich.
L. P. Redner, Norway, Mich.
J. J. Roach, Bennington, Mich.
A. Schwartz, Norway, Mich.
W. A. Scott, St. Johns, Mich.
R. J. Shank, Lansing, Mich.
C. E. Spencer, Port Huron, Mich.
E. P. Swift, Norway, Mich.
A. G. Wright, Fenton, Mich.

CHANGE OF ADDRESS.

G. W. Beeman, Traverse City, Mich.
W. D. McHugh, Ontonagon, Mich.
F. A. Waples, Cody, Wyo.

BOOKS RECEIVED.

SURGICAL DIAGNOSIS. By Otto G. T. Kiliani, M. D. Wm. Wood & Co., New York, 1905.

PRACTICAL PROBLEMS OF DIET AND NUTRITION. By Max Einhorn, M. D. Wm. Wood & Co., New York, 1905.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By Prof. Dr. Carl von Noorden. Translated by Broadman Reed, M. D. Vol. VI. Drink Restriction (Thirst Cures), Particularly in Obesity. E. B. Treat & Co., New York City, 1905.

Book Notices.

Under the Charge of

RAY CONNOR.

INTERNATIONAL CLINICS. Vol. I. Fifteenth Series. 312 pages. 27 illustrations. Cloth, \$2.00 net. J. B. Lippincott Co., Philadelphia and London, 1905.

The present volume contains, in addition to the regular sections on Treatment, Medicine, Surgery, Neurology and Obstetrics, a review of the Progress of Medicine, 1904. This necessitates somewhat briefer sections, and those on Treatment and Obstetrics are comparatively short. In the section on Surgery, Archibald Young contributes an interesting account of the Treatment of Severe Burns, involving extensive areas of skin by means of Wolfian grafts. He has nothing new to bring forth, but has so modified the technique as to permit of greater rapidity in the preparation and planting of the grafts. In contrast to the Thiersch method, these grafts nearly always take. Robt. Dawbarn gives a clinical lecture on the Starvation of Malignant Growths by Depriving Them of Blood Supply, a procedure which, while not usually curative, still gives the surgeon one additional means of combating a dreaded foe. In the section on Neurology a case of cerebellar tumor is reported by J. Walter Carr and the impossibility of an accurate localizing diagnosis pointed out.

Dr. Stevens reviews the year's work on treatment briefly and comprehensively. Medicine is covered by Drs. Edsall and Stanton. J. C. Bloodgood considers the advances in surgery. According to his opinion, the most important experimental investigations having practical surgery value during 1904 are those of Sauerbruch and Brauer on the Surgery of the Thorax. Sauerbruch's original apparatus for opening the thoracic cavity is pictured, as well as his later model. A diagram is also given of the pneumatic operating-chamber in the surgical clinic at Breslau. Both these investigators are agreed that maintaining a lower pressure around the lungs is preferable to raising the pressure in the trachea. Mikulicz has already operated nine times in this chamber, although the details are not as yet published.

The volume is well illustrated and quite up to the standard of these well known and valuable publications.

THE OPEN-AIR TREATMENT OF PULMONARY TUBERCULOSIS. By F. W. Burton-Fanning, M. D. Cantat. Pages 176. Illustrated. Cloth, \$1.50 net. W. T. Keener & Co., Chicago, 1905.

This attractive little book approaches the subject in a very practical way. The effort is made to separate the essential from the non-essential things in the care of these cases. The importance of a proper selection of the case is urgently insisted on not only for the good

of the individual, but also for the credit of the methods employed. Open air, methodical rest and the proper use of exercise and food are the chief agents to combat the white plague. These must be scientifically employed and continuously used. The persistence in treatment is perhaps the most important of all.

Thus the chief use of Sanatoria is as a kindergarten to start the cases in the right road and get them into proper habits which can be continued at home. Life-long care is the price the patient must pay for continued existence. The book is well written and amply repays the trouble of perusal.

DISEASES OF THE HEART: A CLINICAL TEXT-BOOK FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By Edmund Henry Colbeck, B. A., M. D. 350 pages, with 43 illustrations. Second Edition. Cloth, \$2.50 net. W. T. Keener & Co., Chicago, 1905.

The practical little book approaches the all-important subject of heart disease from the clinical side and avoids as much as possible controversial matter. The book is dedicated by its author to his teacher, Sir William H. Broadbent, who has done so much to advance the clinical study of diseases of the heart. Brief chapters are given over to a consideration of the anatomy and physiology and a more extended one to methods of diagnosis. The various diseases of the heart are then taken up concisely and systematically, beginning with congenital affections, pericarditis, acute and chronic endocarditis. The different valvular lesions are taken up in individual chapters and a full discussion of diseases of the myocardium is given. A chapter on the functional disorders of the heart closes the book. The type is good, and numerous diagrams and illustrations serve to add to the clearness of the text.

A HAND-BOOK OF NURSING. Revised Edition, for Hospital and general use. Published under the direction of the Connecticut Training School for Nurses. Cloth. 318 pages. Illustrated. J. B. Lippincott Co., Philadelphia and London, 1905.

The edition of 1878 has been changed and enlarged to meet the requirements of present day nursing. Part I. considers Medical and Surgical Nursing not only in the Hospital but in the Home, and much of value is contained in these chapters. This of course takes up the bulk of the work, but two shorter sections are given up to Directions for Monthly Nursing and Family Hygiene and Emergencies. Many forms of treatment are well illustrated from photographs, and the book is serviceable not only to those who have had a good course in the training school but for those who are trying to do the work with less advantageous training. The book is nicely gotten up, and can be recommended to those who have to do with the care of the sick.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Atypical Forms of Pneumonia.—Pneumonia is applied to two essentially dissimilar conditions, broncho-pneumonia and croupous pneumonia. It frequently happens that one form bears a more or less superficial resemblance to the other, or that the conditions may resemble superficially both forms. The failure to recognize that these two forms are essentially distinct has been the cause of improper therapeutic conclusions, and has rendered the statistics of croupous pneumonia as to morbidity and mortality entirely worthless. We must, then, before the subject can be clear, differentiate the forms by the proper adjectives bronchial and croupous. By this grouping many of the commonly regarded atypical forms will fall properly into the broncho-pneumonia type; such for example as acute pneumonic phthisis, syphilitic pneumonia, many of the tuberculous, inhalation or deglutition pneumonias, postoperative and anesthesia, hypostatic, and influenza pneumonias, the pneumonias of acute infections.

This leaves, then, the remaining great group of croupous pneumonias, the most important of the acute infections of the present period. The typical forms of this disease are easily recognized, but there is a class which is not so easily recognized and can be regarded as atypical.

1. Pneumonia in infants. Located more commonly in the upper lobes, introduced by a convulsion. Cerebral symptoms, especially torpor, retraction of the neck muscles, occasional excitement with muscular twitchings suggest meningitis. Cough is often absent.

2. Pneumonia in the aged. Develops insidiously and without a chill; cough and expectoration slight, and signs obscure. Marked tendency toward pulmonary oedema. Constitutional signs out of proportion to the physical signs.

3. Pneumonia in the alcoholic. Often overlooked because masked by the delirium tremens. Slow onset and absence of fever; pain in side, cough and expectoration, and even dyspnoea may be absent altogether. In the habitual consumer of alcohol in large amounts who does not present signs of intoxication the disease is more like the typical form except there is a tendency to cardiac failure, septic condition and a profound asthenia. Prognosis in both forms highly unfavorable.

4. Toxic, or "typhoid" pneumonia. This is a pneumococcus septicaemia with secondary infection. Constitutional signs are severe, but phys-

ical signs in the lung slight. Profound asthenia, ataxic symptoms, wandering delirium with jaundice and gastro-intestinal symptoms. Often no diagnosis is made during life.

5. Epidemic pneumonia. Multiple cases of croupous pneumonia occurring in prisons, garrisons and at times in private houses, showing either typical or atypical forms. Death rate is high.

6. Larval pneumonia. Undeveloped forms of pneumonia are occasionally found. Two classes are common, (a) characteristic onset, fairly high temperature, evidence of local exudate, cough and rusty sputum, terminating by crisis in 2 or 3 days. So-called abortive form; (b) sickness slight, chilliness, moderate fever, unsatisfactory physical signs. Diagnosis almost impossible.

The atypical forms may be divided according to the pulmonary lesions as follows:

1. Upper lobe or apex pneumonia. Common in infants and children, also in later life. Marked cerebral symptoms and often overlooked.

2. Pneumonia migrans. Rare. One lobe after another is seat of exudate. Prolonged course. Termination by lysis.

3. Central pneumonia. Onset likely to be characteristic. Signs not definite until several days of illness.

4. Terminal pneumonia. Croupous pneumonia is often the terminal event in chronic diseases, especially phthisis, diabetes and disease of the spinal cord. Condition often latent because neither constitutional nor local signs indicate its presence. Detected often only on post-mortem table.

5. Pneumonia in pulmonary emphysema. Constitutional symptoms are well marked. Rusty sputum is absent. Consolidation is not detected because of the emphysema. Pain is absent.

6. Haemorrhagic pneumonia. The chill is followed by more or less abundant expectoration of blood. This lasts for several days and gradually diminishes. Otherwise disease is characteristic.

The diagnosis of these atypical forms is difficult in proportion as they depart from the type. In the extreme form terminal pneumonia, diagnosis is often clinically practicable. Herpes occurs in half of the cases of pneumonia and is of diagnostic importance.—(J. C. WILSON, *New York Medical Journal*, April 22, 1905.)

NEUROLOGY.

Under the Charge of

GUY L. CONNOR.

The Cause of Acromegaly.—The following theories have been advanced to explain the symptom-complex of this condition:

1. Nervous theory (Magendi and von Recklinghausen). The disease is supposed to be dependent upon changes in the nervous system.

2. Theory of growth anomaly (Atavistic—Freund and Campbell). Acromegaly is not to be regarded as a disease proper, but as an anomaly of growth, the whole appearance suggests a reversion to the anthropoid ape type.

3. Thymus theory (Klebs). This theory suggests that an increase in the vascular canals of a large and persistent thymus is the etiological factor.

4. Genital theory. Acromegaly is accompanied in the majority of females by an early menopause and in males by impotence; hence the assumption that by the loss of function of the organs of generation an excess of blood is diverted to the extremities, resulting in their hypertrophy.

5. Thyroid theory. Diseased conditions of the thyroid gland, which is occasionally found in acromegaly, are regarded as the causative factor.

6. Enlargement of the hypophysis theory. This is not acceptable because in a few cases the enlargement is not found.

7. Diseased condition of the hypophysis theory. This theory has been unsatisfactory because an extirpation of this organ does not cause a state of acromegaly and because this organ can be markedly diseased from syphilitic or other chronic inflammations of the granulomatous type and acromegaly does not result.

8. Benda's theory. Acromegaly is probably produced by a hypertrophy and hyperplasia of the chromophile cells of the anterior lobe of the hypophysis, indicating an excessive activity of that gland. Lewis thinks that Benda's theory is the correct one. His views are based on a microscopic examination of a case of his own, and also on the examination of the material from several other cases.

Lewis's case of acromegaly is noteworthy in that:

1. It came to autopsy at an unusually early stage of acromegaly, the usual clinical course of a benign or chronic case having been interrupted by death due to cerebral embolism and secondary hemorrhage.

2. The hypophysis appeared normal upon gross examination, but microscopic examination revealed a hyperplasia, especially of the chromophile cells, which is confirmatory of the theory that acromegaly is caused by an excessive functioning of the glandular elements of the anterior lobe of the hypophysis.—(D. D. LEWIS, *Bulletin of The Johns Hopkins Hospital*, May, 1905.)

Mind-Blindness.—The optic nerve passes backward from the retina (fibres from the nasal visual field crossing over through the optic chiasma and fibres from the temporal field passing backward without crossing) and encircles the crus cerebri, entering the geniculate bodies, anterior corpus quadrigeminum, and the optic thalamus. From these ganglionic bodies fibres then pass outward and backward and finally reach the apical occipital cortex and seem to have their maximum field in the neighborhood of the calcarine fissure on the mesial surface of the lobe. Higher visual coordinating combining centers no doubt exist and are probably located in the angular gyri of the parietal lobes (Nervous and Mental Diseases, Church and Peterson).

Holden reports a case of mind-blindness where no lesion was found of the retinae, optic nerves, optic radiations or mesial surface of the occipital lobes. There was, however, present in the outer cortex of each cerebral hemisphere, including on each side the angular and supramarginal gyri, marked areas of softening. There are doubtless several forms of mind-blindness. In the common form the patient unquestionably sees but does not recognize what he sees. That is, perception takes place probably in the lower cortical visual center about the calcarine fissure, but there is a destruction or cutting off of the higher centers of visual apperception which lie presumably in and about the angular gyri. With this form of mind-blindness there are as a rule hemianopsia, defects in the visual fields, frequently aphasia and astereognosis. Holden's case was unable to count fingers and his eyes did not follow a light. Nevertheless he seemed to be visually aware of the presence of persons in the room. At first glance he impressed one as blind, yet his behavior differed from that of patients in the same ward blind of optic atrophy.—(E. A. HOLDEN, *The American Journal of the Medical Sciences*, May, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

Spinal Anesthesia by Means of Stovain.—

Sonnenburg was one of the first to try stovain, the new local anesthetic, discovered by Fournau of Paris. Stovain has a similar chemical composition to cocaine and eucain. The anesthetic action of stovain is somewhat less than that of cocaine (in equal doses). As stovain is less toxic, it can be given in larger doses than cocaine. Stovain dilates the blood vessels, retards the pulse and contracts the pupil. Injection of fatal doses in animals causes a fall of temperature (opposite of cocaine).

Sonneburg has used stovain 60 times for spinal anesthesia, without every seeing any alarming symptoms, during or after the anesthesia, and believes that stovain is superior to cocaine and eucain. The technic of injection in the spine is the same as that employed with cocaine. Dose is 0.04-0.07 grain. Anesthesia occurs inside of 2-10 minutes—5 minutes is the average.

The anesthesia lasts from 30 minutes to 3 hours. After effects, backache, stomach-ache, thirst and nausea were slightly and exceptionally complained of. In one case, 10 days after the injection of stovain, in an operation for a large peri-appendiceal abscess, fatal purulent spinal-meningitis supervened. Post-mortem autopsy showed several other abscesses in the abdominal cavity, besides the meningeal affection. It is doubtful if the stovain injection was any causative factor in producing the meningitis. In 60 cases of stovain, spinal-anesthesia, 11 times the anesthesia was not sufficient, but the author refers this to faulty technic. Operations performed under this anesthetic include all kinds of operations on the lower extremities. Operations for hemorrhoids, castration, appendectomy, herniotomy, gastro-enterostomy, etc.—(E. SONNEBURG, *Deutsche Medicinische Wochenschrift* No. 9, 1905.)

Experiences from One Thousand Operations for Appendicitis.—Kimmell draws the following conclusions for the treatment of appendicitis.

1. Every well-defined case of appendicitis should be operated upon immediately. The earlier the operation is performed, the more favorable the prognosis.

2. Cases coming under our care later than 48 hours after onset of the disease should be treated conservatively by application of ice, opium, etc.,

unless very serious symptoms require immediate operation. Physics are to be strictly avoided.

3. Abscesses are to be opened as soon as recognized, simultaneous removal of the appendix is not always advisable. If the appendix has been left, it should be removed after the abscess wound has healed.

4. Every patient who had an attack of appendicitis should be protected against return of the disease by removal of the appendix. Appendectomy is also indicated in the chronic form of appendicitis.—(HERMAN KIMMELL, *Deutsche Medicinische Wochenschrift*, No. 16 and 17, 1905.)

Chronic Suppuration on Finger with Deposition of Carbonate of Lime.—The author observed two cases, both in women, one 40, the other 57 years old. They were characterized by formations of white, hard deposits in the subcutaneous tissue of the fingers. From time to time these deposits were discharged by means of formations of small abscesses. The deposits were shown to consist of carbonate and phosphate of lime. The pus of the abscess was sterile. Radiography showed such deposits on all fingers and in the first case a large deposit was also found in the middle of the forearm. The disease existed for 12 years in one case, and proceeded under exacerbations when abscesses formed. A similar observation was made by Wildbolz on the fingers and toes of a woman 57 years old. It seems that such cases as the above have been seen before by others, but the concretions were falsely considered to be goutic (urates).—(THEODOR DUNIN, *Mitteilungen aus der Grenzgebieten der Medicin and Chirurgie*, Vol. XIV., Part IV., 1905.)

Encephalo Meningocele.—W. D. Haggard discusses the malformations of the brain and its coverings, of which he says the three chief varieties are encephalocele, meningocele and hydran- cephalocele. His own case was an example of meningocele containing cerebral tissue. At birth a tumor as large as a goose egg was observed on the back of the head. This grew until, when the child was seen by the author, at the age of four months, it measured seventeen inches by twenty-three, and weighed five pounds after removal, the weight of the child being six pounds. The child reacted well after the operation, but died unexpectedly on the ninth day. The temperature had not been above 100 for the four days preceding, and for two days previously the only conspicuous symptom was a lateral nystagmus.—(*Medical Record*, June 10, 1905.)

GYNECOLOGY AND OBSTETRICS

Under the charge of

B. R. SCHENCK.

The Methods of Inducing Labor.—Hirst contributes a timely article on the methods of inducing labor, making his deductions from a series of 217 patients, whom he has operated upon. Of these, labor was induced by bougies alone in 174 cases. The time required is noted in 138 and in 81 per cent., the child was born in less than 36 hours from the time the bougies were introduced. Labor was induced by bags alone in 23 instances and the delivery was accomplished in less than 36 hours in 83 per cent.

In selecting the method to be employed, the physician considers the patient and secondarily himself. For the patient, he desires the method which will cause the minimum of discomfort and risk; for himself, that which will give the least trouble and take the least time. The bougie method, in the author's experience, best meets these requirements.

The technic is as follows: Bougies, size 17, French, are sterilized by soaking in a 1-1,000 solution of sublimate. After thoroughly cleansing the vagina, sterilizing the hands and putting on rubber gloves, the bougies are rinsed in sterile water, anointed with sterilized vaselin and inserted into the uterus. Before they are put in, one or two fingers should be inserted through the cervical canal and swept around the lower uterine segment, to separate the membranes. A small tampon of iodoform gauze is placed in the vagina, after the bougies are inserted. No pain has been caused and in the large majority of the cases, labor soon intervenes and progresses easily and naturally.

The difficulties and embarrassments of the bag method are contrasted.

Recently, Hirst modifies the above method but only in cases when there are no labor pains after 24 hours. If this be the case, the patient is anaesthetized and the cervix dilated to 6 or 7 cm., by means of a Bossi dilator. Up to this point there is no danger of injuring the cervix. A forceps is then applied and the child extracted, the whole operation requiring about 35 minutes. Prejudice against Bossi's instrument, usually exhibited by those who have had no experience with it, is without reason. After 25 cases, the author highly recommends its use, stating that with a slow dilation, not exceeding 6 or 7 cm., taking 20 or more minutes, there is not much more danger of lacerated cervix than in the average labor. (*Am. Med.*, May 6, 1905.)

Operative Sterilization of the Female.—Küstner of Breslau reports two interesting cases, showing the impossibility of absolutely preventing conception by a partial resection of the tubes. The patients refused laparotomy and further pregnancies were contraindicated. He therefore opened through the cul-de-sac, resected 2 or 3 cm. of both tubes and sutured the openings into the uterus. Within a year, both of the patients returned in the second or third month of pregnancy. Küstner concludes that in order to make absolute the impossibility of conception, it is necessary to resect the entire tube and close the uterine ostia by means of a carefully sutured plastic covering. (*Monatsch. f. Geb. u. Gyn.*, xxi, N. 3.)

Cholecystitis in the Puerperium.—Christiani states that reports of gall bladder inflammation during the puerperium are rare, due, as he believes, to the difficulty of diagnosing such cases. Two instances are described in detail and emphasis laid on the fact that not invariably is a pyrexia after labor, the result of puerperal infection, as it may result from infection in the appendix or in the gall passages. Both should be eliminated in making the diagnosis of puerperal fever. As a general rule, operative intervention should be resorted to earlier under such conditions than in the ordinary case, for an involvement of the liver is more dangerous during and immediately after pregnancy than under normal conditions, while the gravid and puerperal states do not render the operation more dangerous.

Both the author's cases were diagnosticated by the frequent vomiting of bile, the slight peritoneal irritation and the slow, full pulse. (*Ibid.* No. 1.)

Pruritis Vulvae.—The following is strongly recommended by the *Buffalo Medical Journal* in vulvar pruritis:

Rx Acidi Boricidr. ii
Acidi Carbol. liq.....dr. i.
Morphinæ Muriatisgr. i.
Lanolinioz. ii.

M. Ft. unguentum. Sig.: Apply locally.

DERMATOLOGY, SYPHILIS AND CUTA- NEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

The Present Status of Roentgen Ray Therapy.—R. H. Boggs says that much experience is necessary in applying the X-rays in order to get the therapeutic effect, as the various mechanical guides to the dosage are not always reliable. The use of the fluoroscope involves a good deal of risk to the operator even if but infrequently employed, while it is really practically useless except for the purpose of testing tubes and making minor examinations and gives such untrustworthy results that it should be discarded. Sufficient evidence has accumulated to give the X-rays a place in the treatment of all forms of tuberculosis. While a large number of skin diseases are benefited by the application of the rays it is advisable to treat only the most obstinate in this manner, as trivial affections can be relieved by other measures with less expense to the patient. The author concludes by saying: (1) That the wide difference of opinion as to the value of the rays is largely due to the manner in which they are applied. (2) That if the best interests of our patients are to be considered, the rays must be given a place as a therapeutic agent. (3) That injury to the operators from the rays during the past two years has been due to thoughtlessness or lack of familiarity with what is going on in the X-ray world. (4) That in applying the rays it is essential to know the quality as well as the quantity of the rays absorbed, and that this must be varied to suit each individual case. (5) That unless the operator has had a wide experience in the treatment of carcinoma, he should always consult a surgeon in each case, as it is certainly by the combination of surgery and X-ray that the best results are to be obtained.—(*Medical Record*, May 6, 1905.)

X-Ray Treatment of Cancer.—The microscopic changes in the tissue, says E. G. Williams of Richmond, Va., should be our guide as to the therapeutic possibilities in the X-ray treatment of malignant growths. It is evident, he states, that the elements of the tissues are affected according to their vitality. Dead organic matter is unaffected, and the more active the growth the greater the effect. Next to this is the accessibility of the tissues to the rays. Hence the better results with superficial or skin cancers. That moderately deep tissues can be affected is shown by experience, and the way to reach them without producing necrosis of overlying tissues is to lengthen the distance of the tube and the time of exposure. For deep growths, radical surgical measures should be recommended, as the patient should be given the benefit of the probability rather than the possibility of good results. In such cases, however, operation might be rationally followed by X-ray treatment to destroy what may remain of the malignant growth. Inoperable cases should be treated by the X-ray because remarkable results have been obtained and the most distressing symptom of pain relieved.—(*Journal A. M. A.*, May 6.)

Protection from Roentgen-Ray Injuries.—C. L. Leonard, Philadelphia, calls attention to the serious risk that X-ray operators undergo, especially if they follow the practice advised of testing the qualities of the rays on their hands with the fluorescent screen. The only practical method is to limit their radiated field by covering the Crookes tube. For this purpose he uses a pasteboard box a little wider than the diameter of the tube and covered with X-ray lead foil a little heavier than the ordinary tea lead. This extends two inches below the bottom of the box, and can be adjusted so as to limit the field to any extent required. It is not necessary to cover the anode end, and the box is held on a bracket over the portion of the body to be treated; if a very small field is required, a local shield may also be employed. He thinks possibly some effects are due to the strong induction field surrounding the coil which, especially in large hospitals, should be kept in another room, but with the controlling apparatus within the operator's reach. For the dermatitis of the operator's hands, he advises twice daily soaking in very warm water and scrubbing with Eichhoff's superfatted resorcin soap, followed by inunction of lanolin containing half an ounce of boric acid and a dram of resorcin to the ounce. For the acute erythema of X-ray treatment, he employs a stearate of zinc powder with 10 per cent. ichthyol, which he thinks acts as a prophylactic against severe burns. This should not be confused with stearate of zinc ointment, which may do harm.—(*Journal A. M. A.*, May 6.)

Erysipelas with an Excessive Production of Fibrin.—R. Floyd's patient was a coachman, 33 years old, who, in addition to the usual lesions of erysipelas, exhibited an exudate of fibrin so excessive and so disposed as to constitute a croupous inflammation presenting the same essential characters as a croupous colitis or a croupous inflammation of the throat. The man presented symptoms of an ordinary erysipelas of the hand and forearm, until, on the seventh day, vesicles began to form. These became confluent bullæ, extending over the dorsum of the hand and the lower half of the forearm. On removing their epidermal covering, a layer of fibrinous false membrane, varying in thickness from $\frac{3}{8}$ inch to $\frac{1}{2}$ inch and less, was revealed. On the thirteenth day the erysipelas was practically over, though convalescence was retarded by the slow healing of an ulcer on the back of the hand and wrist.—(*Medical Record*, April 22, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

The Limitations of the Value of Nitro-glycerin as a Therapeutic Agent.—Conclusions—

1. The usual dose of nitroglycerin (1-100th grain) is too small to produce any effect in pathological conditions.

2. It is a perfectly safe drug to use. Even in the large and repeated doses used I have never seen any ill-effects.

3. High arterial tension in man is not perceptibly affected by it, nor is dilatation of the blood vessels apparent.

4. Its effects are very transient, as shown by the experiments on dogs, and the ordinary doses of 1-100 grain every four hours could not possibly have any effect on the arteries.

5. Nitroglycerin is said to increase the quantity of urine in chronic Bright's disease, but after keeping accurate records of the daily amount of urine passed, I was never able to satisfy myself that any increase was due to the use of this drug.

6. I believe that in conditions due to arterial spasms called, such as angina pectoris, migraine and asthma, nitroglycerin may be of benefit, in full doses often repeated, but not in arterial sclerosis, when the arteries themselves are more or less changed.

Before closing I would like to mention a drug which in my experience has given the most satisfactory results, in relaxing the arteries and diminishing blood pressure in arterial sclerosis. I refer to chloral hydrate, given in five-grain doses every four hours, night and day. The effects are extraordinarily uniform. The sphygmomanometer will generally show a marked fall of pressure in twenty-four hours, and the distressing symptom of headache will generally be controlled. At the New York Hospital during my service and as well that of my colleagues, Dr. Peabody and Dr. Lambert, nitroglycerin has been entirely discarded in arterial sclerosis and chloral hydrate has taken its place.—(LOOMIS, *Medical Record*, March 18, 1905.)

Tolerance to Nitroglycerin.—In my experience, too readily acquired tolerance to nitroglycerin is not rare, the difficulty being to so carefully and intelligently regulate its administration that, while maintaining a constant slight effort on blood pressure, the increase in dose is as gradual as possible. In my case, in which 20 minims

of pure nitroglycerin were taken daily, the patient had not been encouraged to increase the dose beyond an amount sufficient to produce more than a slight physiologic effect—a trifling fullness in the head. Yet, despite admonition as to care in gradual increase the patient, knowing the nature of his ailment, and believing that great curative power must reside in a drug the name of which suggests so much, and the effects of which on the vascular system were so promptly and powerfully exerted, apparently advanced the dose more rapidly than necessity demanded. Noting this, the drug was several times, at a few weeks intervals, temporarily discontinued, a much smaller amount being directed to be taken on resuming it than that last used; the increase was also to be very gradual. Notwithstanding this, doses of 50 minims of a 10 per cent. solution four times daily were soon reached and continuously taken without the occurrence of any headache whatever, with but slight transient flushing of the face, and no very marked effect on arterial tension, as shown by the sphygmograph. A dose of 5 grains of pure nitroglycerin (in alcoholic solution) was administered by me before Professor Da Costa and the class in the clinic, so that there could be no mistake as to the amount.

As I prescribe nitroglycerin frequently, I often encounter cases in which I believe similar inconvenient doses could soon be reached with a little systemic effect as in the cases just narrated, were a too rapid increase in the dosage to be permitted. When it is desired to employ this drug for a considerable period for its effects on blood pressure, the best rule of administration, in my opinion, is to so proportion the dose that the intervals are comparatively short—never less than four times daily. The amount, though sufficient to produce some subjective or objective effect, should never be more than just necessary to cause the slightest feeling of fullness in the head or to slightly quicken the pulse. If enough is always taken to produce a more marked immediate result, such as flushing and slight headache, tolerance is soon acquired and a quantity may be early reached altogether impracticable of administration.—(STEWART, *Journal A. M. A.*, May 27, 1905.)

BACTERIOLOGY AND PATHOLOGY.

Under the charge of

H. S. OLNEY.

Actinomycosis.—Wright comments on the contradictory reports which have been made as to the biology of the microorganism of actinomycosis, and especially condemns the tendency of some writers to class with actinomycosis other suppurative processes, such as pseudo-tuberculosis, streptothrix or cladothrix infections. He claims that every case of true actinomycosis will show the characteristic granules or "drusen" which are made up of dense masses of branching filaments and their transformation products. By transformation products he means the radially arranged club shaped bodies at the periphery of the granule. It is rather difficult to isolate the organism in pure culture, owing to the fact that bacteria become so intimately enmeshed in the dense granules that cultures are almost invariably contaminated, but he describes a special technic which is ordinarily successful. He has worked with microorganisms isolated in pure cultures from 13 cases in man and 2 in cattle, and regards them all of one species.

It grows well only in agar and bouillon and in the incubator, and for this reason he thinks that its usual habitat is not outside the body, but that it is a normal inhabitant of the secretions of the buccal cavity and of the gastro-intestinal tract, both of animals and man. He believes that the function of the clubs (that is, the hyaline envelope surrounding the peripheral filament) is to protect the mass of the colony from any destructive action of the cells and juices of the tissue, as they are only formed when there is resistance on the part of the tissue toward the microorganism.—(*Journal of Medical Research*, May, 1905.)

Aneurism and Arteriosclerosis.—Camac has investigated very thoroughly the relationship between aneurism and arteriosclerosis, and the effect of syphilis on arterial disease. Some of his conclusion follows: Arterial disease appears to be rare, almost unknown, in animals. Syphilis being probably peculiar to man is by this observation placed more firmly in the list of etiological factors. Arterial disease in children under 6 years of age, even in those who are victims of congenital syphilis, is practically unknown. In those from 6 to 15 years it is rare. It is found in the initial stage most commonly between the ages of 30 and 40. Arterial disease seems to be attributable to syphilis in about 32 per cent. of the cases, and to tuberculosis in about 16 per cent.

The facts presented go to show that the colored race is affected about four times more frequently than the white. General arteriosclerosis seems to be not commonly found with aneurism, and its presence may be considered as evidence against the probable development of aneurism.

Staining with selective stains and treating with a chemical which digests the tissue shows the elastic tissue to be free of histologic alterations, suggesting that this tissue undergoes molecular or physical rather than histological changes.—(*Amer. Jour. Med. Sciences*, May, 1905.)

Splenic Anemia.—There has been for some time much diversity of opinion among various writers as to what constitutes splenic anemia and as to what cases should be classed under this heading. O'Malley discusses the subject very thoroughly and reports a case which is fairly typical and the diagnosis of which is confirmed by microscopical examination. In his case the spleen extended downward to the crest of the ilium and inward to a finger's breadth beyond the navel. The examination of the blood showed red blood cells, 3,000,000; hemoglobin, 80 per cent.; white cells, 14,000.

Differential count:

Polymorphonuclears	57.5
Small lymphocytes	28.5
Large lymphocytes	6.5
Eosinophiles .....	.0.5
Myelocytes	1.5
Basophiles	1.0
Large mononuclears	4.10

A splenectomy was done in this case, but the patient died one week after operation. The spleen weighed 945 G. Microscopically it showed connective tissue hyperplasia throughout the organ. Splenic substance was transformed by this thickening and a marked proliferation of the endothelium was seen. All blood vessels and sinuses had thickened walls from the endothelial proliferation, and these cells were so packed into the sinuses as to fill them completely throughout most of the spleen. Many Malpighian bodies were recognizable, but were enlarged three or four times by the endothelial proliferation and were irregular in outline. Giant cells with nuclei grouped centrally and peripherally were noted. No tubercle bacilli could be found.—(*Am. Jour. Med. Sciences*, June, 1905.)

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THE PAST AND PRESENT STATUS OF THE MEDICAL PROFESSION IN MICHIGAN.*

B. D. HARISON,
Sault Ste. Marie.

It is not my purpose or desire to take advantage of this opportunity to detain you with or to inflict upon you a very technical address, but rather my endeavor is to bring before you in as concise and simple a manner as possible those practical and everyday facts relative to our professional status in Michigan of moment and interest and which concern us all, even to the most modest member, as well as to the member who delights in the scientific and technical side of our professional well-being. And in this connection I desire to review and comment as briefly as possible upon the past and recent accomplishments made in this state, having in view the unification and elevation of the profession of medicine as a whole, and to call your attention to and to enlist, if possible, your interest and support in measures whose objects are future advancement in the line of professional status.

Two of my immediate predecessors in office, Doctors Connor and Bulson, covered very thoroughly in their addresses the two very important divisions in the history of this Society, namely: Dr. Connor from the date of its birth in Detroit, August 10, 1819, up to the date of its re-organization in Port Huron, June 27, 1902; and Dr. Bulson the important facts in connection with and the progress made within the year, the result of such re-organization, the facts of which are familiar to you all.

FORCES ORIGINATING OR RESPONSIBLE FOR MEDICAL STATUS.

There are three principal and direct forces governing, controlling and advancing the status of the medical profession in a state, namely:

First—The Legislature, represented by the State Medical Board.

Second—The state medical colleges, and the quality and character of their product.

*President's Address. Read at the annual meeting of the Michigan State Medical Society at Petoskey, June 28, 1905.

Third—The members of the profession represented by the medical societies in the state.

First: The status resulting from the State Medical Board.

Howell Medical Act of 1883.

Period of free trade in medicine previous to 1883. As you are all aware, previous to 1883 there was no legislative restriction in the practice of medicine in Michigan. All the law required to legally practice medicine, and therefore have the legal standing of a physician and surgeon, was that the person so practicing should hold himself out to the public as a physician and surgeon. The law did not require a physician to have any medical training or experience in the profession in which he practiced or in which he attempted to practice. It was quite legal under the law for any one to use the prefix "Doctor" to his name, or to affix the letters "M. D." or the title "physician and surgeon" to his or her name. If so inclined a street fakir, a chimney-sweep, a scavenger, or a tramp could legally hang out his shingle without any medical qualifications attained in the usual method, and thereby was entitled to sign death certificates, give expert testimony in court, commit helpless people to lunatic asylums, or to do the hundred and one things that a regularly educated physician and surgeon is privileged to do today under the present medical law. In other words, we had "free trade" in medicine in this state.

During the legislative session of 1883. Dr. George Howell, representing Lenawee District in the House of Representatives, introduced a bill which is now known as the "Howell Medical Act," entitled "A Bill to Promote Public Health." This bill was passed by both houses of

the legislature, and arrived at the hands of the Governor for his signature in a dilapidated and mutilated condition, so much so that the author, Dr. Howell, almost failed to recognize his creation after it had received the signature of the Governor. There were two sections to this bill, the first section providing that every person in this state who was actually engaged in the practice of medicine at the time the bill went into effect, September 7, 1883, and who had been continuously and immediately preceding the passage of the act for five years in the practice of medicine in this state, or who held himself or herself out as a practitioner of medicine without regard to any qualifications whatever, should be entitled to register upon making an affidavit in accordance with above quoted facts, within three months after September 7, 1883, the date upon which the act went into effect.

Section two provided that a graduate of a legally authorized medical college in this state, or within any one of the United States, or in any other country, could register upon making an affidavit covering the facts in his case before the clerk of the county in which he was or intended practicing. Under this law the county clerk, being simply a ministerial officer and having no judicial or semi-judicial powers under the act, was forced to accept and record every affidavit presented to him, no matter whether the person so registered had any qualifications or not.

So little was known under this act as to what constituted the qualifications for registration, even by attorneys, and the enforcement of such act by prosecuting attorneys was so entirely neglected, that it was possible to register, practice medi-

cine, sign death certificates, and give expert testimony in court upon a certificate of almost any kind, whether dental, pharmaceutical, or even on registration as an undergraduate or student. An applicant in Saginaw for re-registration offered as evidence of his legal registration under the old act a dental diploma upon which he had been practicing medicine for several years. When it was pointed out to him that the diploma was dental, not medical, he was dazed for a time and said: "It is very funny; I paid for the other kind and supposed I had it."

PERIOD OF LEGALIZED "FREE TRADE" IN MEDICINE, 1883-1899.

As could have been expected under such a lax system of registration and the impracticable judicial supervision of the same, "all sorts and conditions" of the genus medicus registered under the 1883 act, some with legal qualifications, others with fancied legal qualifications, a great many knowingly with no legal qualifications whatever. This method of registration was a direct bid, and was also to a large degree responsible for the origin and growth of the numerous "fake" and diploma-selling institutions in neighboring states, particularly in Illinois, where they obtained charters to conduct medical colleges, so-called, and issued "diplomas" to persons who never spent a day in the study of medicine, and these diplomas were simply sold to the highest bidder.

Michigan, during the life of the 1883 Act, was a favorite "dumping ground" for those persons who had obtained these fraudulent diplomas, and then registered under the Howell Act of 1883 as graduates of "legally authorized medical colleges" and previous to the passage of the Medical Act of 1899 it was generally

conceded by lawyers and others interested, including the medical profession, that these possessors of infamous and bogus qualifications could so legally register under the provisions of the Howell Act, from the fact that the "fake" colleges from whom they obtained their diplomas were "legally authorized" in the states in which they were incorporated, notwithstanding the fact that these institutions as quickly as it became known of the fraudulent work they were doing were closed up by the attorney-general of the state; but no sooner had the attorney-general closed up one institution than another, or rather the same institution under another name and another charter, issued the same class of bogus diplomas.

The notorious Armstrong, of "Independent College" fame, who was convicted and sent to state's prison for issuing fraudulent diplomas, and who was brought to time largely with the aid of the Michigan State Board of Registration, obtained from the Illinois legislature nine different charters. Under the law it took some two years' legal proceedings to close up one of these institutions, therefore he figured that he had eighteen years in which to issue bogus diplomas, at an annual income of some twenty-five thousand dollars, and Michigan was his best field from a business point of view.

CHANDLER MEDICAL ACT OF 1899.

At the legislative session of 1899 the Chandler Medical Bill was passed. This bill provided for a registration board of ten members, appointed by the Governor and confirmed by the Senate, and gave the board power to administer the act through its executive officer, the secretary.

Under this act provision was made to re-register all those practitioners in this state who were legally registered under the provisions of the Howell Act, and it also provided for future registrations from new men coming into the state, or students graduating from the different colleges, either by an examination before the board or through the "approved college" section, which provided that a graduate of a college recognized and listed by the board could obtain a certificate of registration or license by presenting his diploma for verification and record.

Under the Howell Act, as I have already noted, a graduate of a "legally authorized medical college," either in this state, the United States, or in any other country, was allowed to register. The title of this act was "A Bill to Promote Public Health." The board recorded at its first meeting its opinion that the legislature of 1883 in using the words "legally authorized medical college" intended also "reputable college," or, in other words, the sentence should read, "a graduate of a legally authorized and *reputable* medical college;" for if the legislature of 1883 did not intend that a legally authorized medical college should be "reputable," then the title of the act, "An Act to Promote Public Health," would have no force or meaning, for the people could not in any sense be protected or the public health improved or conserved if "fake" and disreputable colleges should come under the meaning, as expressed in the bill, "legally authorized medical college." The secretary, therefore, was directed to refuse to re-register all graduates of "fake" and disreputable colleges who had gone through the form of registering under this section; the

board holding that affiants had simply gone through the *form* of registration without the *facts* required by law to make the form of registration legal.

One of the so-called graduates of the Independent Medical College of Chicago, the most notorious of all "fake" institutions in this country, who had gone through the *form* of registration under the old act, applied to the Supreme Court for a mandamus against the board in order to compel it to re-register him. This case was decided by the Supreme Court in favor of the board's interpretation of the law; consequently by this act of the board hundreds of disreputable and unqualified practitioners, who had gone through the form of registration under the old act, without the fact, were denied certificates of registration, and have either left the state, or, if still in this state, are not now imposing upon a credulous public.

Under this act of 1899 the board had authority to inspect and recognize, or to refuse recognition to, those United States colleges having at least a three years' course of eight months in each year or a four years' course of six months in each year, such recognition constituting a qualification for license without further examination. Graduates of non-recognized colleges and undergraduates could obtain a license under this act by passing an examination upon stated subjects before the board. This act did not specifically provide for a standard of preliminary and medical education as a qualification for entrance to or graduation from recognized medical colleges. It was recognized at the time of its passage that the Chandler Medical Bill was by no means a sufficient medical act, but as a beginning it more than fulfilled the

expectations not only of its promoters but of its enemies, the bogus diploma men, as well. Strange to relate, the latter supported it from the fact that they thought themselves secure through their registrations of form. During the period of this act, 1899-1903, a tremendous amount of medical housecleaning was done by the board, and if there are any unclean corners still in evidence, or medical cobwebs still unswept, it is due to circumstances over which the board has no control. The board endeavored to do justice to every one of the over six thousand applicants for re-registration without fear or favor, and that the conscientious performance of very difficult duties have been publicly recognized is demonstrated by the legislature from time to time since conferring additional powers and responsibilities upon the board. During this period organization was effected, and experience and intelligent observation and study during the three years of the administration of the Chandler Act prepared and educated the board for necessary and further advance in the matter of increased qualifications, both of preliminary and medical education for license to practice medicine in this state.

The following conditions were present at this period, and it is necessary to re-cite them at least briefly in order that the provisions, and system of enforcing such provisions, under the present law may be thoroughly comprehended and appreciated:

In 1882 there were 89 medical schools and 14,934 matriculants in the United States, and this number was increased in 1902 to 156 medical schools and to 27,501 matriculants. The number of medical graduates in 1882 was 4,015; in 1902, 5,002, an increase of at least 25

per cent. in twenty years. It is estimated that there is an average of one physician to 600 of the population of the United States. With the natural increase in the population and the deaths in the profession there would be required each year about 3,000 physicians, based upon the proportion of one physician to 600 of a population. With 5,000 graduates yearly a surplus of over 2,000 physicians annually is being thrown on the profession, overcrowding it and being directly responsible for many of the evils existing to-day in the profession.

Of the 156 medical schools, 126 are so-called regular schools, and 30 so-called sectarian. Of the 126 regular schools over 90 are private corporations or proprietary schools, organized, maintained and owned by the faculty.

The truly phenomenal evolution of medicine in the past few years has more than doubled the subjects of medical study, and the character of their increase has made it absolutely necessary to provide laboratory instruction in those subjects formerly taught almost wholly by didactic lectures. This involves an expense very greatly in excess of the cost of former methods, and means extensive buildings and costly apparatus, as well as a greatly increased and salaried teaching force. It has been estimated that the laboratory method of instruction in all of the really first-class medical schools averages from four to five hundred dollars per student annually.

As a consequence of the above, and the added facts that the legal requirements for license in the several states are being slowly and surely advanced in sympathy and consistent with this evolution or progress in medical science, the private or proprietary medical school is fighting

for existence. If they meet the present requirements they are no longer self-supporting. The tendency is then to conduct them upon a plane sufficient only to comply in form with state minimum requirements, and to use political influence and other questionable means for maintaining their status with medical boards. Their catalogues as a rule are marvelous productions of the ingenuity of man; and their published requirements, both of preliminary and medical education, are suggestive of the very highest standard. Some of them even pretend to give as high as 7,500 hours of actual work in a course as compared with the 4,000 hour standard of our State University. It will, of course, not surprise you when I affirm that a very large percentage of the 156 medical schools are not living up to their published requirements by a very large measure, and cannot possibly do so from the fact that their equipment and means will not permit it. In order to obtain students (otherwise fees) they admit to registration, nominally called matriculation, all applicants who are able to pay the fee, irrespective of their moral or mental qualification or fitness, and while in some instances they may go through the form of examining students for admission, and even condition such students in one or more of the published required branches, how often are these conditions fulfilled? A large proportion of them admit all classes of graduates to advanced standing, including the pharmacist, the veterinary surgeon, the dentist and the osteopath, so-called. Hundreds of these preliminary defective students are often at this time being accepted and registered as students in medicine, and are being graduated, or will be graduated in the future after a de-

fective and intentionally deceptive medical course. The usual method in vogue by nearly every state medical board, of the general recognition of a college and the requirements of a stated qualification for entrance, will do little toward the limitation or exclusion of the product of such schools. The college is an adept at making a good showing at the proper time, and the stated qualification of a diploma from a high school, or its equivalent, can easily be complied with in form. There are a great many degrees of value in high school diplomas, and the equivalent qualification gives at least 100 per cent. of lee-way from the lowest quality of such diploma. It would be of immense advantage to the state and to the profession if students and graduates of this class could be cut out now and in the future, and I believe they represent in numbers as graduates fully 2,000 yearly, or an equal amount of the surplus of graduates complained of. The only feasible and practical method by which this can be accomplished is through uniformity of state requirements of both preliminary and medical qualifications and the absolute control by state boards of the standard with a proper method of enforcement and administration.

NOTTINGHAM MEDICAL ACT, 1903.

Acting on this knowledge and belief, the Nottingham Medical Act was introduced by the board and passed by the legislature of 1903. Section 3 of this act provides that after its passage all persons receiving a certificate of registration in Michigan must qualify for same as follows

First—Possessing as a qualification for registration in a recognized medical college a diploma from a recognized high

school, academy, college or university having a classical course, such diploma to be endorsed by the board as fulfilling its minimum standard of preliminary education, or that an applicant should pass this standard before the Board of Preliminary Examiners appointed by the State Medical Board.

Second—Graduation from a medical college recognized by the board as fulfilling its minimum published medical standard with a course of not less than four years of seven months in separate years. The present standard is four years of eight months in each year.

Third—Passing a satisfactory examination before the board upon stated subjects subsequent to medical graduation.

Of course graduates and matriculants whose diplomas and registration in recognized medical colleges date previous to the passage of the act (September 17, 1903) are exempted from its advanced requirements. It would be retroactive legislation to require a graduate of Harvard, for example, of twenty years ago, in order to qualify for the board's examination to fulfil present day standards or to require a student in the third year of a college to rematriculate, provided such graduate and matriculant had fulfilled the requirements of this state at the date of their graduation and matriculation. The legal point involved in the above exemption is most important. At present in no state in the Union is it fully recognized and given proper effect except in Michigan. For this reason in the recognition of colleges Michigan lists colleges in groups or classes: Group I including only colleges of the first grade whose standards fulfil in every particular the itemized standard, both of preliminary

and medical education established by the board since September 16, 1903. Group II includes those colleges whose standards fulfil and equal the standard recognized in Michigan at the date of graduation and previous to the present advanced standard. Colleges in Group I naturally are also in Group II. If it were not for this method of grouping or classifying colleges, either present inferior colleges would have to be grouped on an equality with first-class colleges or it would only be possible for very recent graduates of a limited number of colleges to qualify for the State Board Examination for license in Michigan, and the qualified graduates of an extinct reputable college would be cut out of his just rights to the practice of medicine in this state. The third group consists of colleges whose courses only are recognized for advanced standing in colleges of the first-class under Group I.

Michigan has also a more advanced and practical method of recognizing and listing colleges than any other state in this country. She sets and publishes each year an itemized and minimum standard of preliminary and medical education, the former requiring a diploma or certificate representing an exact value. Nothing is left to guess work or supposition. The present minimum value of a literary diploma is a total of 15 units (a unit representing a school year of eight months' work and examination), including 9 required units: of English 3, Mathematics 3, Latin 2, Physics 1; and 6 elective units of German 2, French 2, Greek 2, English Literature 1, History 2, Chemistry 1, Botany 1, Zoology 1, Biology 1, Trigonometry 1, covering a course of four years of eight months in separate years. And the latter (medical education) repre-

senting a four-year course of not less than seven months in separate years, consisting of a total of 4,000 hours of work and examinations, divided into lectures, laboratory and clinics, the number and proportion of which are specified. The usual method of standard of a four-years' course of seven or more months in separate years is too indefinite for practical purposes. It may mean much or it may actually amount to very little.

Colleges are required to report to the board at least once a year, on forms provided, the details of their preliminary and medical standard in units and hours. Colleges are not listed permanently or until some cause is brought to light to disqualify them, but are only listed in the interim of board meetings. It has been found much easier to list a college for cause than to find or prove a cause for its unlisting.

It is one thing setting and publishing a high or sufficient standard of preliminary or medical education. It is quite a different proposition enforcing and maintaining such standard. The method adopted and used by Michigan is not only effective, but to some extent original as far as medical board work is concerned.

The following statement of the Chairman of the Special Committee on Matriculation, in the Announcement of the College of Physicians and Surgeons of Ontario, 1904-5, is noticed:

"Now in the State of Michigan a very high standard of examination is prescribed. It resembles very much our Senior Matriculation Examination. It looks very well on paper, but if you will look into these requirements you will find that matriculation at any university is accepted by that state and that nullifies their high standard. The same prevails in

Ohio and other states except New York. I believe there is some reason why Ontario's certificate of qualification is not received in the later state, and we hope by the adoption of this report that our standard of matriculation will be placed on a higher basis than it ever has been and will fulfil the requirements even of New York State."

This statement is not founded on fact, and is I presume the result of want of proper information on the subject. By reference to Rules and Regulations relating to Standard of Preliminary Education and Examination issued by the board under "Preliminary Education," is the following:

"Resolved, That the following Minimum Standard of Preliminary Education be adopted as required in Sec. 3, Subdv. First (e), Act 191, Laws of 1903 * * * and no diploma or certificate issued by a high school, academy, college or university, or other institution, or by a board of examiners, shall be recognized by this board * * * unless in the opinion of the board such diploma or certificate fulfil the minimum standard of preliminary education established by the board, to wit:."

Then follows the preliminary standard of a minimum of 15 units of quality for a diploma or certificate.

You will note in this connection, therefore, that the diploma or certificate is only received by the board as preliminary evidence, not as final evidence of course and qualification. In other words, the diploma or certificate serves simply as an identification of the applicant, and in addition to this identification it is necessary for the applicant to furnish testimony, under oath, corroborated by certificate from the college or school authorities of the exact work and examinations ac-

complished in obtaining such diploma or certificate. Therefore, in place of the standard set by the board being modified, much less nullified, it is more accurately enforced, and the practical result is that the standard is higher and more uniform than its reading would indicate. The course demanded in the several subjects has a certain fixed and symmetrical value. For example, a candidate may present his units in required work, consisting of English 4 units, Mathematics 3 units, Latin 2 units, Physics 1 unit, with an addition of 5 elective units, total 15 units. As the units required in the standard are 15 it may naturally be supposed that the applicant has complied with the standard, but such is not the case. He has obtained a diploma or certificate from the result of an unsymmetrical course, and has obtained his extra unit in English at the expense of his elective work. His application is, therefore, rejected. In like manner, units in excess of the required unit or units are not counted, and units or fractions of units less than the required units are also not counted.

The statement quoted exempts New York state. While the New York Board of Regents has a similar method, yet its standard is theoretically 20 per cent. below that of Michigan, and practically 40 per cent. lower. The latter from the fact that New York accepts the equivalent of a unit on subjects, where Michigan requires 2 units, and the equivalent of one-half a unit where Michigan requires 1 unit, and a fraction of a unit, where Michigan allows no credit whatever.

No New York Regents' Certificate of preliminary qualification thus far presented for endorsement to Michigan has been able to qualify to within at least 40 per cent. of the latter's standard.

The weighing and measuring of the Ontario standard adopted last year in accordance with the Michigan method and as compared with the present Michigan Standard of Preliminary Education would result in the Ontario certificate being found defective to the extent of fully 50 per cent. It will be noted, therefore, that the defect which is stated exists in the Michigan Standard of Preliminary Education has no existence in fact, but on the other hand that Michigan's standard is not only higher than that of any other state in the Union, but in addition its method of administration is upon a higher and more exact plane than any now in existence. Ohio has a similar standard, that of a high school diploma, but its administration is subject to criticism from the standpoint of remarks quoted above, with the result that it is at least 40 per cent. lower than that of Michigan.

The same system is involved in accepting a medical diploma in an application for a state board examination for license. The applicant must not only be a graduate of a college recognized by the board as fulfilling its published itemized standard in every detail, both as regards preliminary and medical education, but he must also furnish the board with a detailed and itemized statement of his medical course. The usual method of the recognition of a college and the acceptance of a diploma as *prima facie* evidence of qualification is not the method in this state. In addition to the general recognition given to a college its detailed course completed by every graduate who is an applicant for license is investigated. While one graduate of a certain college may be accepted, another graduate of the same college and of the same year may be rejected. By this system, all students

and graduates must stand solely upon actual work and course, and while the general reputation of a college may assist it in obtaining formal recognition in the form of listing, its actual accomplishments in the matter of course and work is necessary in order to continue its standing and to obtain a substantial result.

That this system adopted and in vogue by the Michigan board is ideal, or at least has great merit, and is upon a higher and more practical plane than any system yet developed in this country, is acknowledged from the fact that the Association of American Medical Colleges at its meeting in Chicago April 10th last, adopted the 4,000 hour itemized standard, divided into lectures, laboratory and clinics, similar to the standard now in effect in Michigan; and this same standard was adopted also by the American Federation of Reciprocating, Examining and Licensing Medical Boards at its Indianapolis meeting, April 27th last.

In a letter received from one of the most prominent educators in the United States last April, appears the following:

"At a recent meeting of the American Medical College Association, at which I was present, it was recognized that the Michigan Standard for Medical Education is at the top, for which I am sure your board is to be congratulated."

As a practical result of the Standard of Preliminary Education established by the board, and the method adopted of administering it after some two years, it has demonstrated the fact that fully 50 per cent. of high school diplomas which were issued upon a 15 unit standard, are either defective an average of some 2 units or have been obtained through an unsymmetrical course. Certificates of admission to a great majority of literary

colleges whose published requirements look well on paper, have also invariably been found defective in quality. Consequently a great many applicants for admission to medical colleges have been refused endorsement by the board. Some of the rejected applicants possessing these defective diplomas and certificates appeared before the State Board of Preliminary Examiners last September, and all failed to pass or even obtain a condition, therefore demonstrating that the defects above noted were real, not technical.

The keynote of the merits of the Michigan Standard of Preliminary and Medical Education is not solely the standard itself, but the method adopted in enforcing such standard. A diploma, and by the way, the term "diploma" is the most villianously misused word in the English language, is looked upon by the board with suspicion, and is handled with the utmost care, until such time as it is accurately measured and weighed. In other words, it is the man behind the gun, not the gun itself, that commands respect and makes for accurate and lasting results. We have had this well demonstrated recently in the far east.

MEDICAL RECIPROCITY.

After investigating and considering the subject thoroughly in its history and various phases, the State Medical Board took up the subject of medical reciprocity in the fall of 1901, with the view of making effective Section 3, Subdivision 4, of the then existing Chandler Medical Act, which directed the board to receive as a qualification for registration in Michigan the licenses issued by other states in the Union, provided such licenses equaled the qualifications demanded by the act for registration in Michigan, and pro-

vided as well that the state issuing the license to be endorsed should recognize licenses issued by this state having an equal standard. At that time there was practically no medical reciprocity in the United States. There were associations in existence, having as a reason for such existence the object of medical reciprocity, and from the fact that such associations were unofficial and without authority, absolutely no practical results had been accomplished.

Upon suggestion from the board of this state, the executive officers of the Wisconsin, Indiana and Michigan Boards met in Chicago in January, 1902, and formed the American Confederation of Reciprocating, Examining and Licensing Medical Boards, whose membership consists of state medical boards, not members of state medical boards. The states, members of this Confederation, arranged a basis for medical reciprocity, one with another, and actual results in medical reciprocity immediately followed. Since then membership of states in the Confederation has steadily increased, and the following states are members in good standing: Michigan, Wisconsin, Indiana, Nebraska, Kansas, Iowa, Illinois, Maryland, Ohio, Pennsylvania (Eclectic), Kentucky, Georgia. The following states have given notice of intention to join the Confederation as soon as their boards meet to complete the form: District of Columbia, New Mexico, South Carolina, North Dakota, Minnesota, Missouri, Wyoming and Vermont. Maine and New Jersey reciprocate, but are not members of the Confederation.

**BASIS ADOPTED BY THE CONFEDERATION
FOR MEDICAL RECIPROCITY.
PREREQUISITE CREDENTIALS.**

(A) As a prerequisite to reciprocal registration, the applicant therefor shall

file in the office of the board of the state of which he is a licentiate, such evidence as will enable the said board to certify that he is of good moral and professional character. In connection therewith, as evidence of moral and professional character after graduation and licensure, each applicant shall present, from his former home, to the state board in which registration is sought, satisfactory evidence that he has been, for at least one year, a member in good standing of the county, state or national medical organization of the school or system of practice to which he belongs, and a certificate of recommendation issued to him by vote, at a regular meeting of the society in which his membership originated, that he is worthy of registration anywhere, and such certificate of recommendation may be treated as part of such application and considered in connection with the other evidence presented.

(B) Each applicant shall be required to furnish in addition to the evidence under (A) an affidavit that in good faith he has abandoned practice in the state from which he came, and that it is his intention to become a permanent resident of the state in which such application is made.

QUALIFICATION I.

(C) A certificate of registration showing that an examination was less than that prescribed by the state in which an average grade of not less than 75 per cent. was awarded, the holder thereof having been at the time of said examination the legal possessor of a diploma from a medical college in good standing in the state where reciprocal registration is sought, may be accepted, in lieu of examination, as evidence of qualification. Pro-

vided, that in case the scope of said examination was less than that prescribed by the state in which registration is sought, the applicant may be required to submit to a supplemental examination by the board thereof in such subjects as have not been covered, and provided, that the applicant had been engaged in the reputable practice of medicine at least one year in the state issuing the certificate on which endorsement is sought.

QUALIFICATION II.

(D) A certificate of registration, or license issued by the proper board of any state, may be accepted as evidence of qualification for reciprocal registration in any other state. Provided, the holder of such certificate had been engaged in the reputable practice of medicine in such state at least one year; and also provided, that the holder thereof was, at the time of such registration, the legal possessor of a diploma issued by a medical college in good standing in the state in which reciprocal registration is sought, and that the date of such diploma was prior to the legal requirement of the examination test in such state.

In Qualification (A) it will be noted that evidence is required which may be furnished easily, and without expense by any physician who is a member in good standing in the organizations of the system of practice to which he professes to belong, and, what is probably of still more importance, as quacks are nearly always migratory characters, it requires a character of evidence which they can never furnish.

Qualification (B) is a necessary safeguard against the abuse of the privileges of reciprocity, especially in the health-resort states, by a class of practitioners

who desire to move in and out with the pleasure and health seekers. These requirements put the whole question of reciprocity on such a broad and comprehensive basis as to seem to put them ultimately within the reach of all the states.

Qualification No. I includes the more recent graduates and is designed to cover those applicants for reciprocity who obtained their license through the double qualification of graduation from a reputable medical college and examination before a state medical board. It provides for inequality of state requirements by the only equitable and practical method, viz: a supplemental examination. It matters not under Qualification No. I if the requirements of one state are very much higher than those of the other state. The inequality can be adjusted equitably in every case without inflicting any hardship, and it allows at any time for the raising of standards in states at such times and under such circumstances as are made necessary by local conditions. This qualification eliminates completely "a repetition of the tests of qualification," the one and only reason given for medical reciprocity.

Qualification No. II applies to those reputable practitioners who obtain their state license on the basis of a faculty examination (college diploma) previous to the date of the double examination requirement (college diploma and state certificate) in states. Under this qualification no state is required to accept an applicant whose diploma dates subsequent to the date of the double examination test in such state. In other words, the applicant if he had applied for registration in such state at the time of his graduation would have been accepted. Therefore, the state, under Qualification No. II,

dates back the application only. The applicant, in addition to a standard of qualification recognized as such at the date of issue, at this time also possesses several years of practical experience, which is in itself a legal qualification and asset, and has further been investigated and recommended by the state in which his professional work has been done.

Could any provision for reciprocity be fairer, more equitable, more consistent with constitutional as well as statutory law, broad and yet conservative, insisting upon an exact legal qualification at the date of registration, than Qualification No. II? It includes fully 75 per cent. of those practitioners to whom the benefits of practical reciprocity apply. Reciprocal legislation which provides only for the present and future practitioner and ignores the older and experienced practitioner, for the reason that the latter has not obtained his license through a state board examination, is not only irrelevant and unjust, but is also unconstitutional.

Congress last January passed a medical reciprocity act for the District of Columbia, six lines of which practically includes the principles embodied in Qualifications I and II, namely: The board is not authorized to issue an endorsement of the license of another state, "unless the applicant acquired the right to practice medicine and surgery in such jurisdiction under conditions equivalent to those with which he would have had to comply in order then to have practiced medicine and surgery in the District of Columbia."

I have already called your attention to the principles of law involved in legal advanced standards from a practitioner who at the date of his graduation had fulfilled all and every legal requirement of educa-

tion and state registration. He could not legally have been required twenty-five years ago to take a four years' course when only a two years' course was given in his legally reputable and at that time high standard medical college. He could hardly have been expected or required to take a course in bacteriology when no such course was feasible; and, again, he could not have been expected to have passed a state board examination twenty years previous to the creation of a board in his state. But, notwithstanding all these impossibilities being quite apparent, state boards of the Illinois, New York, New Jersey and Pennsylvania type contend for medical reciprocity under Qualification No. I only, thereby creating a favored class of licentiates with an increased status, and illegally denying this status to the great majority and the most reputable and experienced class of their licentiates, men who have been tested and found not wanting in professional work and standing. It may be of interest to these boards to learn that any scheme of medical reciprocity which includes only licentiates who obtained their medical licenses on the basis of a state board examination, and which excludes licentiates who obtained their medical licenses on the basis of a college diploma, is unconstitutional and unquestionably would be held so by any one of the several state Supreme Courts or the United States Supreme Court, for the following reasons:

1. State legislatures have authority to make reasonable provision for determining the qualifications of those engaged in the practice of medicine, and in connection therewith to create a tribunal, whether called a court or a board of registration, to administer such provisions.

2. State legislatures have up to a certain date provided as a qualification for registration or license subsequent to the passage of medical acts, a single examination of a certain grade, either by a state board of medical examiners or by a faculty of a medical college recognized by a board of medical registration and examination in lieu of such examination. More recent legislation in many states provides, however, for a double examination for license—one by a recognized faculty, and one by a medical board.

3. Up to the date of a double examination requirement by a state board, the legal status of a college faculty examination fully equals that of a state board examination.

4. It is, therefore, illegal and unconstitutional for a medical board to recognize as a qualification for license a state board examination and refuse recognition as a qualification for license a recognized medical college faculty examination up to the date when the law required a double examination qualification.

5. It is not legally competent for a medical board whose state law provides for medical reciprocity to adopt, even silently and without resolution, the policy of non-medical reciprocity. The law presumes proper action by the board in all its provisions, and boards could be compelled, through mandamus proceedings, to administer rightly a reciprocity provision equal to that of an examination provision.

The legal point in the matter centers on the examination qualification as a requirement for license, and the fact that two kinds of examinations are equally recognized in law up to the date of a double examination requirement. In order to understand the legal point involved, it is necessary to separate the *fact* from

the *form*, the latter representing the diploma from the college and the certificate from the board, and the former representing the examination by which the diploma or certificate was obtained. The form is of very minor importance and is useful only for identification purposes, but the fact (the examination) contained in the diploma or certificate is the material substance affected by reciprocity.

The adoption recently by the American Confederation and the Association of American Medical Colleges of a uniform and itemized standard of preliminary and medical education, will without question very greatly promote the future cause of medical reciprocity and will remove a large percentage of the difficulties, real and fancied, which have heretofore been responsible for the "repetition of the tests of qualification" in order to obtain a license in the case of a physician changing his location from one state to another.

Dr. Samuel C. James, President of the Association of American Medical Colleges, in his address at Chicago, April last, states:

"I wish to commend very highly the work of the American Confederation of Reciprocating, Examining and Licensing Medical Boards, which has a membership of fourteen states. Their work is along the lines of uniformity of entrance and graduation requirements, uniformity in state board examinations, uniformity of forms, and modifications necessary in reciprocal qualifications. The work of this association has been the means of accomplishing much for the schools under their jurisdiction. The aims of this body are so highly commendable, and its work is so important and far-reaching, that we would do well to encourage this body and assist them in every way possible. There-

fore, I suggest and urge the appointment of a committee from this Association to attend the next meeting of the Confederation to be held in Indianapolis April 27; this committee to report at our next annual meeting."

THE DISCIPLINE CLAUSE OF THE MEDICAL ACT.

Unfortunately while several of the states legislate against unprofessional conduct and the committing of offences involving moral turpitude by licentiates, only one state—Michigan—in addition specifically legislates against obscene advertising and the employment of solicitors of any form in procuring patients. It is true, of course, that no practical results of these provisions have been so far obtained, owing to the fact that the State Medical Board was enjoined a year and a half ago from hearing the cases charged with offences under this section, but the injunction has recently been dissolved and the law held constitutional, and it will only be a matter of a short time before those licentiates who have disgraced the professional as well as themselves, through want of professional conduct, obscene advertising and other violations, will pay the legal penalty involved by the canceling of their licenses. That an injunction of this nature, issued by one of our circuit courts preventing the enforcement of a perfectly proper and constitutional law should be untried for nearly a year and a half for no other given reason than that the attorneys behind the injunction were busy with other cases, is a parody on the administration of our state laws. While the discipline clause should prevent in the future disreputable acts of licentiates canceling their certificates and preventing their registration in other

states, still it will not altogether eliminate objectionable matter from the newspapers, as physicians outside of the state cannot be reached, and practitioners whose licenses are revoked will continue in some instances to advertise and evade the responsibility in law by the employment of other means, impossible to charge directly as a violation of law. The only practical method of preventing objectionable matter in newspapers is the passing of an act by the legislature making it an offence for a newspaper or other publication to print such matter.

PENAL SECTION OF MEDICAL ACT.

By a recent act of the legislature the extreme penalty of a violation of the medical act has been raised from a fine of one hundred dollars to two hundred dollars for each offence, thereby taking the trial of charge of violations from the justice to a circuit court, where questions of law may be properly determined. Nine out of ten persons properly charged with a violation of the medical act were acquitted, owing to the fact that the jury failed to interpret the law properly, and in justice court the juries are not only judges of fact, but the law as well. Michigan at present in respect to the penal section of her medical act is in advance of other states.

STATUS RESULTING FROM THE STATE MEDICAL COLLEGES TO THE QUALITY AND CHARACTER OF THEIR PRODUCT.

MICHIGAN MEDICAL COLLEGES.

Owing to the fact of my active connection with medical legislation and the medical board in this state during the past few years, naturally I spend a large proportion of time possible in this ad-

dress on the subject in which my opportunities for accurate knowledge of it has been greatest. Time only will permit a general reference to the standing and work of our medical colleges, and the continuance of this most important and interesting subject I regretfully pass along to one of my successors in office. I think I can assert without fear of contradiction, however, that the aggregate courses, standing and product of our medical schools in Michigan are fully equal to that of any other state in the Union. The classified results of state examining boards will bear me out in this statement. During the past six years great advances have been made in course and methods of instruction, and still greater things are guaranteed in the future. Owing to the advance in required preliminary education for entrance only properly qualified students can at this time register in Michigan medical colleges. This has considerably reduced the number of students matriculating in Michigan schools, but it will greatly improve the quality of the future graduates. I think I can also prophecy in the near future the requirement of a fifth practical year to the course, which would result and make necessary, according to the best authorities in this country, the adoption of the fifth year by all first-class colleges throughout the United States. The medical board at its recent meeting advanced the standard to eight months in each calendar year, and for the promotion of uniformity adopted the Kober Schedule of Medical Course recently endorsed by the American Confederation and the Association of American Medical Colleges.

STATUS RESULTING FROM STATE MEDICAL SOCIETIES.

You doubtless are very well informed on the subject of the present and past status of the Michigan State Medical Society. You doubtless remember that the year following its re-organization an increase from a membership of 450 to a membership of 1,800 became an accomplished fact, and from 11 affiliated medical societies we have 60 county medical societies meeting weekly, semi-monthly, monthly and quarterly, all working well, with marked and increased interest in all matters pertaining to the profession. The membership in the county society, the most important unit in the county, state and national societies, is being well maintained, and the cordial relations between physicians, where formerly contention and prejudice had full swing, is most noticeable in all the counties where societies have been established under the new order of things. These results obtained through unity and re-organization have been the principal rewards and assets of the society, and if maintained will still continue to bear fruit in the future. As a result of this organization it has been an easy matter to obtain proper and effective legislation in matters of interest affecting the profession, and the nomination and election of one of our most worthy members to the regency of our State University has demonstrated not only the deserved popularity throughout the state of the member-elect, but has also demonstrated the practical purposes and result of state organization. Your officers and members of the Council have been most active during the past year, and district meetings in charge of the several councilors have been organized and held in

seven councilor districts, and three further districts will hold meetings in the near future. The several committees have one and all been more than ordinarily successful, due to their persistent labor and the intelligent handling of their several interests. I will briefly enumerate the result of their successful labors:

The Committee on the Establishment of a Sanitarium for Cases of Incipient Tuberculosis, Dr. H. J. Hartz, Detroit, Chairman.

The labor and difficulties connected with obtaining the committal of the state to the objects of this committee were of very great magnitude, and were overcome by the continued and persistent efforts of the Chairman and the members of this committee, aided by the active support of the state organization represented by the several county societies. It is true that the appropriation made by the legislature was small, but most important is the fact that the state has been committed to the principles involved in the bill, and the work thus favorably begun guarantees its continuance under the most auspicious circumstances in the near future. An official commission under the act will be appointed by the Governor, and this commission will have the authority of the state to continue the matter along conservative yet progressive lines, and to carry out the ideas of the majority of the profession as to the proper and best means of contending with and limiting in the future the reign of the White Plague in this state.

The Committee on Legislation and Public Policy, Dr. Walter H. Sawyer, Hillsdale, Chairman.

Dr. Sawyer is also Chairman of the Legislative Committee of the State Medical Board.

The accomplishments of this committee this year have been most substantial and gratifying. It has to its credit no less than three bills introduced, resulting in three acts without amendment or modification. These acts passed are:

First—An act dividing the State Board Examinations into a Primary and a Final Examination, allowing students in recognized medical colleges to be examined upon and receive credit in those subjects completed in such medical schools at the end of the second year.

Second—An act amending Section 3, Subdivision 6 of the 1903 Medical Act, adding to the discipline clause a provision against the employment of solicitors, runners or cappers by licensed practitioners, or the payment in any form for the procuring of patients.

Third—An act amending the penal section of the medical act, providing for the trial of all cases of violation of the act in circuit courts in place of in justice courts.

All the above acts were given immediate effect.

In addition to the above acts the committee was most active and successful in defeating objectionable acts introduced with the object of modifying the provisions of the legal requirements for medical registration in this state, most important of which was the optometry bill, designed to legalize the treatment of defects of vision by so-called opticians, who carry on the somewhat doubtful business of fitting glasses and curing headaches. This bill will undoubtedly be re-introduced next session, and in the meantime county societies should prepare themselves for effective action at the proper time.

The Committee on Reduction of Time in Which Suit May Be Brought Against a Physician for Malpractice. Dr. F. B. Tibbals, Detroit, Chairman.

The activity and good judgment of the Chairman has been rewarded by the passage of an act reducing the time record from three years to two years, a very substantial modification of the former unjust provision.

Michigan Member of the National Legislative Council of the A. M. A., Dr. Emil Amberg, Detroit.

Dr. Amberg, as usual, has been most active in his services to the cause of legislation, and has accomplished a great deal in the matter of furnishing those in authority with necessary information and advice, in order that the complex subject of medical legislation could be more readily understood and measures for its promotion be practically undertaken.

In closing my remarks on the work and status of the Society during the past year I cannot forego the privilege my office gives me of making a few brief suggestions, having in view its future benefit and success.

FUTURE PLACE OF MEETING.

While the attendance at last year's meeting was most satisfactory, still I believe the general object of the Society would be greatly enhanced if it established a permanent home for itself in Detroit, where advantages can be had not possible in any other place in the state. I may briefly enumerate a few of the benefits probable and possible if the annual meeting of the Society should be permanently established in Detroit.

First—The advantages gained from the fact that Detroit has eligible for membership nearly 1,000 practitioners.

Second—Detroit is not only easily accessible from all points of the state by rail and by water, but she is one of the best reputed convention cities of the United States, and the conditions for members attending the meetings and for the meetings themselves are unsurpassed.

Third—Detroit as a medical center, with its medical schools in the city and in close proximity, could furnish attractions in the form of clinics and demonstrations not possible in any other place in the state.

Fourth—If a city of the size and importance of Detroit were selected as the yearly meeting place of the Society a permanent home building and library owned by the Society would not only be possible but probable in the near future.

Fifth—Detroit being the home of the Society's Journal and the Secretary's office, the conveniences and advantages of meeting there from this connection alone would be very great.

Sixth—Detroit as the largest and most important city in Michigan could furnish attractions and interests which no other city in the state could possibly compete with, thereby guaranteeing always the largest attendance possible at meetings.

BIOGRAPHIES OF THE PIONEER MEDICAL PRACTITIONERS.

The Secretary of the Michigan Historical Society has informed me that it is the desire of the Society to obtain as complete and correct a history as possible of some of the pioneer practitioners of Michigan, and in this connection has suggested that this Society furnish the necessary data. The Law Society of the state has appointed a committee to furnish the Historical Society with the necessary matter in connection with the history of the pioneer legal practitioners of the state, and I

would, therefore, suggest that this Society should also appoint a committee authorized to furnish the Historical Society with the matter desired.

THE PATENT MEDICINE CURSE.

Of all the ills by which the human race is cursed at the present day the greatest of all evils in its magnitude, its baneful effects, and its hold on the people through a purchasable press, is the patent medicine curse. So firm a grasp has it that the average religious or temperance (so-called) papers advocate on the one hand absolute alcoholic prohibition, and with the other hand receive the money for advertising medicine containing ten times the quantity of alcohol than the beer which they unsparingly condemn and curse in their editorial columns. Not only do these so-called religious and temperance papers solicit and receive these alcoholic medicines, but they also receive and solicit "cure-alls" of the most flagrantly obscene nature. For the very reason, the more patent medicines that are used the better it is for the medical profession from the material point of view, suggests the necessity of the profession taking such action whereby this curse can be checked or limited or the public attention called to the necessity of taking measures for its suppression. The question might properly engage our Committee on Legislation and Public Policy, or it might be placed in the hands of a special committee.

Finally, to summarize the Past and Present Status of the Profession in Michigan:

First—Prior to 1883 we had without any legislative restrictions whatever absolute free trade in the practice of medicine in this state.

Second—Subsequent to 1883 and up to 1899 we had legalized free trade in the practice of medicine, owing to the fact that the registration act passed in 1883 was insufficient and simply recorded registrations in place of regulating such registrations. During this period of sixteen years there were some 1,500 medical registrations yearly in the state.

Third—During the period from 1899-1903 the Chandler Medical Act was enforced, resulting in the regulation of the practice of medicine in this state, driving out of the state, or compelling them to cease practicing, some 1,500 persons who had gone through the form of legal registration under the 1883 Act upon the qualifications of bogus medical diplomas or other insufficient qualifications. During this period only the diplomas of United States medical colleges of the first-class were recognized as qualifications for registration, all other applicants for license to practice in the state being compelled to take the board's examination.

Also during this period the re-organization of the State Medical Society took place and was a most important factor in the advance of professional standing and increasing the qualifications for medical registration. The yearly registrations during this period averaged five hundred.

Fourth—During the period from 1903-1905 to date, the Nottingham Amendments to the Medical Act of 1899 have been in force, resulting in raising and regulating the requirements of Preliminary and Medical Education for Registration in the state to such a standard that at the present time Michigan's requirements for the legal practice of medicine is on as high or even higher plane than that of any other state in the Union.

In the important subject of medical reciprocity Michigan is held by the profession throughout the Union as not only an originator, but also as a leader in the matter of effective action and ability to overcome in a practical manner problems heretofore held impossible of solution.

Michigan medical colleges have kept closely in touch with higher requirements and their standings have advanced to the degree contemplated by the legislature.

The State Medical Society has, during this period, grown satisfactorily in numbers, organization and influence, and has demonstrated that in public questions affecting the interests of the profession it is a power to be reckoned with in the

proper and righteous solution of such questions.

The yearly registrations under the 1903 Medical Act average a little less than three hundred.

In comparison with other states the three forces involved in and responsible for medical status, namely: Medical Legislation, Standard of Colleges and an Organized Profession represented by the State Medical Society, I think you will agree with the conclusion that taking into account the status of the profession in 1883 and again in 1899, the present, or 1905, status of the profession in Michigan, is not only eminently satisfactory and gratifying, but most surprising in its advance in so brief a period.

SURGERY AND HUMAN WELFARE.*

FRANK B. WALKER,
Detroit.

As the spirit of patriotism and of loyalty warms within us on the return of our national memorial days and words of gratitude and honor come to our lips for those who wrought and sacrificed for us, so on this occasion our hearts as well as our minds are stirred by the hallowed memories that cluster about the humble origin, the difficult growth and glorious achievements of our chosen profession. It is in deference to this sentiment and because of the important role that surgery has assumed in the modern practice of medicine and surgery, and its bearing upon human welfare that I have chosen this subject.

The remarkable advances made in medicine and surgery during the past few decades are now matters of common parlance. They have been marvelous in the rapidity with which they have come about and in the extent to which they have reached. When mention is made of them in these days, medicine and surgery are generally spoken of as one undivided whole. Such they really are and essentially will remain so, but the fact that there are two terms instead of one designating the healing art and the historic fact that they were divorced from each other for long periods of time, indicate a natural comparison if not a contrast. We have in mind at this time a reasonable comparison, one that will express the real truth with regard to the one without disparaging the other.

*Oration on surgery. Read at the annual meeting of the Michigan State Medical Society at Petoskey, June 29, 1905.

It is pertinent in this connection to determine in an approximate degree, if possible, how much the human race is indebted to surgery for its past and present welfare. What human welfare is or has been would, seem to be a matter of opinion. To judge by the applause and criticism of mankind and by the manner in which life, health, financial gain, social position, political ambition, distinction in art or literature or science, and sensual gratification are bartered for each other, one would infer that the standard of human welfare varied with different individuals, and that the particular forces at work to produce it, ranked in importance according to the point of view. Without pursuing this phase of the question, it will simply be taken for granted that life and good health supercede all other features of our earthly existence. They did precede in the life of the race all the artificialities of civilization that seem now so essential to happiness, and have been, are now and always will be the conditions upon which will depend the perfect enjoyment of all other things.

Neither history nor tradition informs us in regard to the exact time and manner of the origin of medicine and surgery. Fancy, however, carries us back to a far distant prehistoric period when our earliest ancestors, guided by instinct and by observation of the lower animals, sought repose and relief by crude and imperfect means and by the employment of leaves, roots, minerals and natural waters to assuage their pains if not to attain perpetual youth. Medicine had a most lowly origin, and from all accounts surgery played the meanest part of it. I shall take time merely to allude to its status through the centuries, and yet this department of history is most interesting

and fascinating since it portrays more vividly than wars or boundary lines the actual welfare or lack of it, that those generations enjoyed.

The earliest authentic reference to anything of a surgical character relates to the command of Joseph to his servant and physicians to embalm him, implying some crude knowledge of anatomy. Among the Chinese the invention of medicine was ascribed to one of their emperors, who lived about 2687 B. C. Account is given of their using fomentations, plasters, lotions, baths, cups and acupuncture and the red hot button, but they had no knowledge of anatomy and their surgery was barbarous. Bloody operations were not attempted; the reduction of hernia was unknown; the treatment of cataract was beyond them, and even venesection was not practiced. Among the Greeks before the Trojan war surgery was involved in myth and tradition. Medicine at first was guided by instinct and practiced by shepherds and soldiers, then by priests. After the Trojan war, 1184 B. C., practice was confined to the temples and degenerated later to superstition, mysticism and the rankest jugglery. The custom of visiting patients in their own homes was attributed to Pythagoras and his followers. In the ancient Gymnasia of Greece were three orders of physicians, one of whom, the *Iatroliptes*, put up prescriptions, anointed, bled, gave massage, dressed wounds and ulcers, reduced dislocations and treated abscesses. Some of these physicians were reputed to have shown wonderful skill. It is recalled that Plato, antedating Osler by many centuries, reprimanded Heroditus for succeeding too well in prolonging the lives of the aged. Under the name of Hippocrates, who was born 400 B. C., some au-

thentic and many spurious writings have come down. Among them are The Laboratory of the Surgeon, in which he treats of articulations, luxations, fractures, instruments, dressings, bandaging and operating. He described wounds of the head, of the heart, the glands, the nature of bones, and yet, owing to the respect of the Greeks for the bodies of the dead and the consequent prevention of dissection, anatomical knowledge was most meagre at this time. It is not strange therefore that arteries and veins were confounded and nerves, tendons, ligaments and membranes were represented as analagous tissues. Physiology was speculative without an anatomical basis. In fact his ideas were rife with speculation. His books are full of the four elements—earth, water, air and fire; four elementary qualities—heat, cold, dryness and moisture; and the four cardinal humors—blood, bile, atrabile and phlegm. With the establishment of the Alexandrian library and under the patronage of the Ptolemies, the study of anatomy was greatly encouraged. As soon, however, as Rome dominated Egypt, dissection fell off. The Romans would witness any amount of bloodshed in the arena and all sorts of inhuman practices upon living human beings, but considered contact with a corpse to be profanation. It has been stated that during Galen's time (131-201), there was not in Rome a single skeleton. Indeed Galen barely mentions five or six men who devoted themselves to dissection during the space of four hundred years down to his time. He nevertheless wrote fifteen books on Anatomy, classifying muscles as flexors and extensors, and is said to have been the first vivisector. He noticed that blood spurted from a wounded artery and nearly dis-

covered the circulation. He represented the highest authority in medicine during that period and yet held the most curious views on many points. After his death dissection was neglected. Medicine as a whole retrograded for several hundred years. Only here and there were physicians of any eminence. The rest were ignorant, indolent and apathetic. Alexander of Tralles (525-605) advised venesection in the foot rather than in the arm, but like the age in which he lived, he was bound up in prejudice and superstition. Paulus, a celebrated Greek physician, who died 690 A. D., advised paracentesis of the thorax and abdomen, extracted calculi from the bladder, treated aneurism, excised hypertrophied mammae in men and performed bronchotomy. Among the few bright minds of these centuries was Albucasis, who died 1122 A. D. He compiled a practice of medicine, devoting a small portion to surgery. He does not mention dissection, but used the cautery in spontaneous luxations and commencing curvature of the spine. Of fractures and dislocations he remarked, "This part of surgery has been abandoned to men of vulgar and uncultivated minds, for which reason it has fallen into undeserved contempt." The Arabians were weak in surgery since their religious prejudices prohibited dissection. Early in the thirteenth century lived Roger, of Parma, called the earliest pioneer in modern surgery. He contended for poultices and moist dressings in the treatment of wounds, abscesses, and ulcers, against the school at Bologna, where Hugo Di Lucca insisted upon the dry treatment. Roger was the first to use the term seton. The school at Salernum, in the twelfth and thirteenth centuries, was a bright spot. Salernian practitioners used the trepan

ligatures for wounds of the carotid arteries and jugular veins, instructed how to treat wounded intestines, extracted diseased teeth, used splints for fractures, and understood the operation of lithotomy. From 1250 the barbers did the scarifying and bleeding. Others, even women, learned to apply leeches and cauteries, competed with the barbers and rivaled the clergy. Clerical surgeons regarded operations beneath their dignity. Most of the knowledge of anatomy in this period was derived from a treatise of Copho on the anatomy of the hog. Guy de Chauliac, born about 1300, the most famous physician in his time, published *The Inventory*—a work on surgery—and divided abscesses into hot and cold, including among the latter, oedema, tympanites, dropsy, and scirrhus. He opened the abdomen for dropsy, attempted radical cure of hernia and operated for cataract. Sylvius, born 1478, was the first to arrange all the muscles of the human body and to name those not already designated. He first studied blood vessels, using colored injections and discovered the valves of the large veins. Fabricius Hildanus recommended amputation in case of gangrene. The study of gross pathology and pathological anatomy was begun by Benivieni, a Florentine, who died in 1502. Hippocrates and Galen had advised bleeding from the arm on the affected side in pleurisy and pneumonia. That practice was abandoned with the neglect of Greek traditions and the Arabs substituted pricking a vein in the foot to let it bleed drop by drop. This continued until the sixteenth century, when the Greek method was revived. Previous to the fifteenth century surgery was regarded below medicine. The latter was in the hands of the priests, while the for-

mer was abandoned to a class of ignorant barbers, bathers and bonesetters—all social outcasts. Most of the operators were traveling surgeons, who stopped in a place as long as cases lasted or until reverses compelled them to leave. They usually did one or two operations. Some operated for hernia, others for stone, still others for cataract, etc., and the secret method became a family heritage. As the prejudice against dissection lessened great students of anatomy appeared, among them Benivieni, de Carpi, Vesalius, Fallopius and Fabricius, who were also in their time great surgeons. Gradually the number of surgeons increased as the clergy became willing to descend to this kind of work. The gulf between the physicians and surgeons narrowed until first in 1515, a reconciliation took place between the Brotherhood of St. Come—a college of surgeons in France—and the university. This was the new birth of surgery. The story of Paré has often been told, but is worth repeating. He stopped the practice of pouring boiling oil into wounds and amputations, and the use of the red-hot iron to stop hemorrhage and recommended the ligature for amputations, thus freeing that operation from the great torture which had hitherto accompanied it. Caesarean section, which had been known to the ancient Greeks and Romans and abandoned during the middle ages, was restored in the sixteenth century. Leonard Botal, a Piedmontese, born in 1530, was the first to recommend frequent and general bloodletting. He declared that an infirm old man should be bled from two to six times a year, and that healthy individuals should have their veins opened every six months. By the middle of the sixteenth century the priesthood became separated from medicine and

surgery began to approach it. The seventeenth century witnessed the discovery of the circulation, of peruvian bark, the invention of the thermometer, the Italian method of rhinoplasty, the invention of the tourniquet by Morel at the siege of Besancon in 1674, the first transfusion of blood in man by Jean Baptiste Denis, and the invention of the bistoury by Bienaise. In this century also the Collots, the famous family of lithotomists, lived. Lambert practiced injection in hydrocele; Andry of Lyons originated the term orthopedics, and Georges Mareschal was said to have performed eight lithotomies in half an hour. During this century the better physicians received support from the state and the reputation of the profession improved. The seventeenth century has been called one of aggrandisement of physicians, but social emancipation did not come until the eighteenth. According to one classification the regular profession included physicians, surgeons, barbers, regimental surgeons, lithotomists, bathkeepers, midwives, nurses, apothecaries, druggists, confectioners and grocers. The eighteenth century brought the screw tourniquet, invented by Petit. Sabatier recommended resection of the head of the humerus. Desault protested against the promiscuous use of the trephine and championed healing by first intention. Bilguer performed the first resection of the wrist in 1762. Von Siebold revived symphysiotomy. White, of Manchester, originated the method of reducing dislocation of the humerus with the foot in the axilla and operations for false joint by removing involved surfaces of the bone. The elbow joint was first excised by Wainman in 1758, and the knee joint by Filkin. These joint excisions were however soon forgotten. During

this century there lived also many other famous anatomists and surgeons, among whom were Chopart, Tenon, Scarpa, Gimbernat, Winslow and Portal. Surgery had begun to advance in earnest. As one writer has put it, the sixteenth century opened the way for checking hemorrhages; the seventeenth simplified methods and improved the treatment of wounds; the eighteenth saw the real beginning of the study of pathological anatomy which made surgery more exact and put it on a footing with other branches of science. The nineteenth continued medical progress along these lines and further by the discovery of anesthesia and the application of the germ theory of disease contributed more than all the preceding centuries combined. In consequence of these advances the practice of surgery has been revolutionized, its possibilities infinitely extended and its blessings correspondingly multiplied. Procedures formerly unjustifiable have now become not only feasible but answerable to duty. In addition to those already mentioned there have been other evidences of surgical activity and growth in the last century the character of which will be recalled by merely mentioning a few in the grand galaxy of names. There was Jeffrey, the inventor of the chain saw; Heine of osteotomy; Esmarch, the inventor of Esmarch's bandage; Sims, Emmet, von Langenbeck, Billroth, Czerny, Gussenbauer, Mikulicz, Pirogoff, McDowell, Larrey, who introduced into surgery plaster of Paris, Dupuytren, Lis-Franc, Velpeau, Pravaz, Malgaigne, Nelaton, Sir Astley Cooper, Syme, Liston, Lister, Sir Henry Thompson, Lawson Tait, Sir Spencer Wells, John Collins Warren, Mott, Hodgen, Senn, Murphy and a host of others, each of whom have

materially contributed to the world's progress.

From this brief resumé of the development of surgery and by reading between the lines can be made out in an approximate measure the quantity and quality of assistance that surgery has given during the centuries in solving the problem of life. To be sure in the early history of the race surgery offered little even in comparison to medicine, but it may be fair to state that compared with the present less was needed. It may not be assumed nor do I think it true that surgery kept pace uniformly with advances all along the line. When we remember that for long periods surgery was not only neglected but even stunted by the prohibition of dissection we can not wonder that it did not grow. Vienna did not possess a skeleton until 1658. Strassburg obtained one of a male in 1671, and several years later one of a female. Secret dissections were performed at Harvard in 1771 and were unlawful for 60 years more. As heavily burdened with its own troubles as it is, the church has much to answer for in the deprivation of benefits from surgery for which it was responsible. Furthermore when we consider the environment in which surgery was placed for so long during the middle ages we could not expect it to have developed. Surgery is one of the products of the division of labor. It has required an atmosphere of sciences developing in many channels and the possibility of cultivating special skill. Time was when there was no opportunity for the development of special skill in any line of work. Each individual unavoidably scattered his forces to supply his own needs. Division of labor has however made possible close application and in consequence the refine-

ment of skill, and now as a result almost particularized the function of the individual. That this is true has been repeatedly demonstrated by the successes and failures of men in their chosen occupations. Happy is the man who has the good fortune to choose the vocation for which heredity and environment have fitted him. Failure does not mean of no use but a misfit.

It is unnecessary to recount in detail the many points of preferment which surgery has now obtained over medicine. The comparison may be made theoretically from standard medical works and practically from clinical reports. In a general way it may be stated that with certain exceptions, medicine has to do with physiological principles and functional alterations, usually of a temporary character, while surgery treats chiefly of pathologic conditions and more or less permanent organic changes. A close comparison of text-books of fifty or even twenty years ago and now would exhibit marked changes in their subject matter. These changes would relate not only to topics discussed but also to their tentative style of treatment. From the impetus imparted by expanding collateral sciences, surgery has not only perfected the treatment of purely surgical diseases, but also assumed to itself the care of cases previously considered purely medical. Cases showing diseased conditions of visceral organs aptly represent such progress. In strong contrast to former periods the present time witnesses prompt and general acceptance and adoption of real advances. Instead of a bigoted adherence to false theories and imperfect methods as the followers of Hippocrates and Galen exhibited, there is now a spirit of willingness to accept the truth at any hand, and

a persistent endeavor to bring surgical technique to absolute perfection. In consequence the entire surgical world is one large laboratory where all the workers are diligently striving together to learn the cause and an immense clinical amphitheatre wherein a vast army of surgeons are each and everyone applying the latest and best modes of treatment.

Recently, while looking over the last annual reports of a score of general hospitals located in all sections of this country, I was struck by the great preponderance of surgical over medical cases, which were cared for in these places. The contrast in favor of surgery was marked, both in the number treated and in the percentage of recoveries. As has been referred to already the kinds of cases exhibited a wider application of surgery than medicine and the redemption of many medical failures through the adoption of modern

surgical methods of diagnosis and treatment.

Looking at the fruits of surgery at short range we are apt to underestimate the brilliancy and the magnitude of its results. We are accustomed to look for its everyday application and cease to marvel and give credit. Put down in our midst the surgery of the early Egyptians or of Galen, or of the middle ages, or of Paré, or of the eighteenth century, or of fifty or even twenty-five years ago, with the limited number of individuals able to apply it, and then only could we be made to realize the incalculable benefits of surgical progress. Even an approximation that would seem satisfactory is impossible. We can only accept gratefully the fact that not only the happiness but the very lives of hundreds of thousands of human beings are annually conserved through the agency of that formerly despised art—surgery.

IS GYNECOLOGY TO REMAIN A SEPARATE SPECIALTY?*

RICHARD R. SMITH,
Grand Rapids.

With the advent of modern surgery, gynæcology took on new life, in fact, it can hardly be said to have been a distinct specialty before this time. Intimately linked, until then, with obstetrics it had had, to be sure, an existence, but hardly more. Within the past thirty years, however, owing mostly to surgical methods of treatment, a vast amount of work has been done in this field. The complete revision

of ideas in regard to physiology and pathology—and a surgical technic have employed the time and energies of certain medical men and gynæcology has been regarded as a specialty. Every useful fact obtained, every operation, every new idea, has had to withstand long and bitter contention, scathing criticism, or the more disastrous effect of too ready adoption and widespread application with its resultant reaction. But a great deal has run the gauntlet and has lived, so that to-day there is no exacter nor more useful

*Oration on Obstetrics and Gynecology. Read at the annual meeting of the Michigan State Medical Society at Petoskey, June 30, 1905.

science to be found within the pale of modern medicine. Starting with the haziest kind of ideas in regard to diseases of the pelvis, much of it based on symptoms, there has been slowly developed a science founded upon pathology. From talk in regard to dysmenorrhea, menorrhagia or leucorrhœa, we have come to discussions of actual conditions—of endometritis, uterine displacements, fibroids, carcinoma, or pelvic inflammations. Fifteen years ago gynæcological surgery was limited mostly to plastic operations and currettements—the gynæcologist but seldom opened the abdomen.

To-day plastic operations are considered but an insignificant part of the work of the operating gynæcologist, it is largely abdominal.

Within the past few years there have been seen some rather startling tendencies. In the first place there has been shown a disposition on the part of the general surgeon to invade this field. He is removing the uterus, he is correcting displacements, he is confidently removing the appendages and with it all, he is perhaps a little inclined to belittle pelvic work. We not infrequently hear him remark that gynæcology consists of but a few operations anyway, that any good surgeon ought to do, and that it is, or should be, merging into general surgery. And the gynæcologist remonstrates in vain, exclaiming that the ability to remove a uterus, or repair a cervix does not make a gynæcologist, but that long years of patient study and training in the physiology and pathology as well as the surgery, are necessary to deal with the diseases peculiar to women.

On the other hand, and it would almost seem in retaliation, the gynæcologist has been invading the upper abdomen. In

doing so he is meeting with a storm of criticism, not only from his brother, the general surgeon, but also from many gynæcologists, who, proud of what has been accomplished in this field, perhaps, too, of the part they have had in it, jealously guard this domain. They cry that there are many questions of the pelvis still unsolved; that the work in this field alone is more than enough to employ the time and efforts of one set of men; that in extending the work to other regions of the abdomen you are but detracting from the fineness of your work in the pelvis proper.

All of these arguments have a certain amount of force—the work of the general surgeon in the pelvis has been, and may still be said to be far from good. He fails, often, to grasp underlying principles in his plastic work and his intra-pelvic work is apt to be old fashioned. He is frequently still tying off appendages en masse, sometimes even using silk, and but few of them ever do anything but a ventrofixation to correct a displaced uterus. He is working through miniature incisions and seldom examines the appendix and gall-bladder. The resection of partially diseased ovaries, the careful covering in of denuded surfaces with peritoneum—leaving the pelvis in a smooth, surgically neat condition—the various operations to correct displacements, leaving the uterus in a natural position and retaining its normal mobility, are operations you seldom see done by the general surgeon. The gynæcologist to-day performs total olation of the ovaries only under strong indications and then with regret, but alas, this operation, even to-day, is done only too frequently by the occasional invader of this field or by him

whose interests have been mostly in other surgical work.

Gynæcology is by no means a perfected science—there are many, many problems still unsolved, and most important ones, too. The treatment of carcinoma of the uterus, although the later, more radical operations are improving results, is still far from satisfactory. The correction of displacements is still much discussed. Some are advocating numerous round ligament operations in and outside of the abdomen. The ligament is pulled through and stitched outside the internal ring, or through separate openings, or intra-abdominally it is lapped on itself in various ways, or stitched in front or behind the uterus. Shortening of the utero-sacral ligaments is practiced largely in the east and with more or less satisfactory results. Ventrofixation and suspension, so long practiced, are to-day tabooed by the majority of gynæcologists—the imperfect functional results and especially the occasional difficulty in following labors, having brought them into disrepute. The variety of other operations suggested, however, are almost admissions of their imperfection. The correction of uterine displacements, then, can hardly be said to be solved. We might cite other equally important shortcomings in operative work.

Many interesting and important questions in physiology and pathology need further solution, the relationship and importance of the various uterine supports, the cause of deciduoma molignum, the origin of fibroids, of carcinoma and of many other neoplasms are still unknown.

But in spite of the fact that gynæcology is still imperfectly developed, the gynæ-

cologist is turning his attention to other fields, is investigating the pathology and operating other abdominal organs. Why is he doing so? Mainly, I believe, because of the now more fully understood association of pathological conditions in the abdomen with those of the pelvic organs. The importance that appendicitis assumed attracted his attention and led him to examine this organ which lay so near his field. To investigate was to lead him to the solution of many of the symptoms of which his patients had complained and the removal of the appendix obtained for him better results and more complete relief. Much the same can be said of the kidney and the gall-bladder. Having improved his technic and shortened his time of operation, he has had time to investigate and oftentimes under proper indications to operate these organs. The real reason then, for the gynæcologist doing general abdominal work, is not that he has lost sight of the problems in the pelvis itself, not that he thinks that he has reached perfection in technic, or that his pelvic results are all that can be desired, nor again that because he is a skillful operator he can safely venture into another man's field; but because he cannot have a broad, comprehensive grasp of his subject unless he is familiar with and able to operate upon all other abdominal organs. Simply because all pelvic problems are not solved, shall the gynæcologist wait year after year while other equally important things bearing on his subject are awaiting him in the adjacent abdomen?

What shall it avail him if he diagnose and operate a displaced uterus and fail to recognize prolapsed abdominal organs—the stomach, intestines and kidney? He diagnoses and operates a right sided tubal

infection, finds after his patient has left the hospital that most of her trouble has been caused by a diseased appendix, gall-bladder or kidney. Is he doing his patients justice not to examine these organs and operate them if the same is indicated. Another, although perhaps less important reason for the gynæcologist performing general abdominal work is the surgical training which he has at his command and which makes him eminently fit to do other abdominal surgery. His carefully studied and perfected surgical technic is practically the same and most of the manipulation is similar.

The gynæcologist has still much to learn of general abdominal surgery. His gall-stone operations certainly lack the completeness of the surgeon who has paid special attention to this line of work. He has not as yet devoted much time and attention to diseases of the stomach and its surgery. The general surgeon, on the other hand, is constantly improving his technic in the pelvis and is gaining a broader and better grasp of the subject.

It takes, it seems to me, but little power of prophecy to see the outcome of all this. Argue as we may, the gynæcologist is going to do not only the work in the pelvis, but is going to do all other abdominal work. The abdominal surgeon, on the other hand, will operate more and more in the pelvis, but if he is to compete, he will be obliged to devote more attention to this difficult field. The two will, I believe, in a way converge—and we will have a new specialty. It perhaps can be said that that day has already arrived—a specialty of pelvic and abdominal surgery. The men who are to do this work must have special fitting not only in gynæcological physiology and pathology

and surgery, but must be equally familiar with the physiology, pathology, operative technic and all that pertains to the stomach, kidney, gall-bladder, intestines, appendix—in fact, everything intra-abdominal. It would seem to me to be a most natural division. It will be a specialty founded upon a close and positive relationship of diseases, an elaborate special technic and a peculiar fitness and training for this responsible field. It can readily remain apart from surgery of the head and thorax, from railroad or accident surgery, from fractures or orthopedic surgery or from genito-urinary surgery. It is rarely feasible for one to practice obstetrics and surgery and to do justice to both. For practical reasons the affiliation between obstetrics and gynæcology must, it seems to me, grow weaker, in spite of the many problems which they have in common. Newer, more practical and, I believe, broader, lines will be drawn.

Commerce of Surgery.—Fernand Hennrotin, Chicago (*Journal, A. M. A.*, July 15, 1905), calls attention to the fact that physicians are said to be no less deeply stained with the supposedly unfortunate taint of commercialism than their brethren in other lines of work. He says that primitive man displayed his assertion in grasping whatever suited his fancy, and that the inheritant desire of possession and enjoyment underlies our very nature—a legacy of man's continual struggle with the forces of nature. Physicians are no more exempt from this desire of possession than other classes of society, and to this attribute, Hennrotin states, is due much of their activity and success at the present time. He states that physicians should make their patients understand that they expect a definite return for their services, and advises a prompt collection of accounts. He touches briefly on the matter of commissions given by surgeons to general practitioners, and concludes his paper by stating that the matter of commercialism among physicians will settle itself.

PLACENTA PREVIA.*

G. W. NIHART,
Petoskey.

Sudden and accidental hemorrhage during gestation has been a theme for discussion, among medical men, since the earliest dawn of medical history, and well might the subject receive the candid and serious attention of every physician to-day. A sudden hemorrhage occurring in a pregnant woman after the fifth month of gestation, should make a physician apprehensive of an abnormal placental attachment. The causes producing the abnormal condition, sources of blood, and the means of nature for its arrest; also, the proper treatment, all, have been, and are now, the subject of countless controversies.

What constitutes placenta previa? I always liked Rigby's definition given over 100 years ago, viz: That the placenta is previa, when fixed in that part of the womb which always dilates as labor advances. When we remember that the lower uterine segment represents a funnel, the narrow internal orifice, corresponding with the internal os; that when the child passes this part, the lower segment is stretched and dilated, until it gradually assumes the shape of a cylinder, it is not strange that when the placenta or any part of it, is attached to this segment of the uterus, that hemorrhage is bound to occur during labor.

As to the frequency of placenta previa authorities differ. Rigby gives 42 out of 108 cases of hemorrhage, which is far greater than we experience at this time.

Johnson and Sinclair gives 1 out of 573 deliveries, Hecker, 42 in 17,000. Speigleberg regards the proportion as one in 1,000, etc. As to the histology of this condition we have not improved materially, since the time of Paré. He thought that the placenta, because of its premature detachment gradually encroached on the mouth of the uterus as pregnancy advanced, and for over 100 years this was entertained; others that it was on account of the position assumed by the female just after coition; others that it was on account of the greater specific gravity of the ovum. One thing I have noticed in my experience in this regard, and that is, the greater majority of these cases are among the poorer, hard working classes—getting up after confinement before subinvolution has taken place, and becoming pregnant during this condition, and hence think this a potent cause.

There are two varieties of this troublesome difficulty, namely, central and lateral. Central, when the placental disk corresponds with the internal os; lateral, when the disk is attached to the margin of the os. I wish to say, in this connection, that fortunately, the former condition is very rare. I have never seen a case where the placental attachment was strictly central, even if the os was found completely covered; I found that in detaching it on the edge or side that there was a lateral condition.

As to the diagnosis, hemorrhage is the most characteristic. This may occur prior to or at the commencement of labor. My experience is, that it is very liable to

*Read before the Section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Petoskey, June 28, 1905.

occur between the fifth month and the commencement of labor. The cause of this anomaly is explained, when we remember that during the first stage of labor the lower zone of the uterus is dilating, and in this way detaches portions of the placenta, and as a consequence causes bleeding. As to the muscles of the uterus brought into play during the above process, I will not worry your patience in describing it, but will pass on to the most essential part of my subject, to the accoucheur, namely, the treatment. This should be carried out with the view of the least maternal, and the least fetal mortality; hence some methods in vogue are attended with very great mortality (fetal), and should not be generally adopted. When called to attend a case of hemorrhage during the pregnant state I first endeavor to determine whether it is caused by placenta previa or from some other cause, such as a fall, heavy lifting, etc. If the flow be slight, and the fetus not viable, I desist from active interference, remembering that even in the central implantation, it is not always that the life of the mother, or the nutrition of the fetus is interfered with, hence rest in the horizontal position, cold water vaginal injections, and sedatives are indicated to tide the patient over; in fact, the case should be handled much as the usual case of abortion. However, if there is serious hemorrhage, and the fetus is viable, premature labor is indicated. When labor occurs spontaneously, whether at term or previously to this time, I proceed to deliver under anesthesia, by dilating the os if necessary, by the use of my fingers, detach the placenta on one side or the other, gently and persistently insinuate the hand into the utrus, rupturing the membranes, then grasping a foot, and pulling it down

into the os, to act as a plug, and wait for nature to assist in the delivery, or, in fact, to carry out the Braxton Hick's method. I wish to state that I do not use the tampon, unless I desire to precipitate labor, where through its mechanical effect it works nicely, providing it can be kept in place. As a haemostatic it amounts to but little, as it soaks through in a short time, and the effect, at most, is only temporary. Paradoxical as it may seem, there are a few cases of bloodless placenta previa on record. In the *Courier of Medicine*, July, 1903, W. G. Moore describes a case where after the rupture of the membranes, half of the placenta and portion of the cord, were seen outside the vulva, the head being expelled with the next pain. The remaining portion of placenta was found adherent to the cervix. There was no hemorrhage.

Hammer reports 107 cases of p. p. as follows:

Placenta P. Centralis.....	19.
Placenta P. Lateralis	70.
Placenta P. Marginalis.....	18.
Mortality of mothers....	7.47 per cent.
Mortality of children....	54.2 per cent.

The treatment used might be of interest.

1. In P. P. centralis Braxton Hick's version 14 times. One mother died; 11 children died.

2. In P. P. lateralis, combined version 40 times. Thirty-four mothers and 13 children saved. Tampon, 8 cases. Seven mothers and 2 children saved.

In breech presentations, slow extraction, 8 cases. All the mothers saved with one child.

Artificial rupture of membranes sufficient in 11 cases. All the mothers and one child saved. Forceps 2 cases; good

results. Perforation, 1 case. Metreury-sis, 2 cases; good results.

3. In *P. P. marginalis*, combined version once; internal version once; rupture of membranes 13 cases. One child died of nephritis.

Only 36 children were at full term and in these cases, the marginal form of *p. p.* was present. The maternal mortality, on first thought seems high, but one each was due to eclampsia, lysol-poisoning, air embolism and sepsis. The remaining (3 cases) were caused by post partum hemorrhage, which, by the way is a great danger in these cases, which should be

treated by firmly packing the whole of the inter-vaginal track. The fetal mortality in combined version is 31 per cent., though most of the infants were premature. I will not tire your patience, gentlemen, further by the detailing of cases that have come under my care, further than to say that out of six cases I succeeded in saving all the mothers and three of the children, the other three being premature. I have, gentlemen, endeavored to give a short, and I trust, somewhat practical paper on this, one of the most troublesome and dangerous complications of the lying-in-room.

SOME DIFFICULTIES IN THE DIAGNOSIS OF SYPHILIS.*

JAMES F. BREAKEY,
Ann Arbor.

Before the law every one is supposed to be innocent until proved guilty. In the practice of medicine, were one to make a rule as to the probabilities of the presence of syphilis, it would be better to take the stand that all patients are probably syphilitic until the contrary is established. Such a statement will undoubtedly be called rank pessimism by many, but it is being pessimistic upon the safe side at least; not that every one is probably immoral or syphilitic, but no one is absolutely exempt from the possibilities of syphilis either acquired or inherited, and that fact should constantly be borne in mind.

General practitioners, particularly in smaller towns, constantly fall into error through failing to remember the preva-

lence and widespread distribution of the disease, with its insidious and varied symptoms and manifestations. Many decline to stigmatize their patients with such a diagnosis even in the presence of the most patent signs; while others, recognizing the symptoms, fail to attach to them their true significance. This failure to properly diagnose the condition is not at any one stage of the disease. The primary chancre, the secondary eruption and the tertiary necrosis of nasal and other bones or gummata are daily seen by physicians who fail to attach to them their true meaning and the underlying cause. Possibly, in fact quite probably, many mistakes are made and cases overlooked because physicians, forgetting the unusual types and courses of the disease, are expecting classic symptoms and history; to say nothing of the many cases in which

*Read before Section on General Medicine at the annual meeting of the Michigan State Medical Society at Petoskey, June 29, 1905.

we find well marked dermatoses or constitutional diseases co-incident with syphilis.

While syphilis may be complicated by the presence of any other disease, either local or constitutional, probably the most frequent and most serious is tuberculosis. The concurrence of these two not unusual diseases always renders a prognosis most grave, and only by the early recognition of both diseases and vigorous treatment for each may one hope for success in their handling. Pulmonary tuberculosis and syphilis usually run a most rapidly fatal course as does syphilis and tubercular peritonitis. Localized tubercular lesions however, may be present in the syphilitic and by early recognition and appropriate treatment improve. Tubercular bone lesions and tubercular joints not infrequently occur in syphilitics, and, providing the syphilitic infection is not of the rapidly malignant type, the tubercular lesions yield to proper treatment with as good results, as in non-syphilitics. In all cases of doubt, active specific medication should be pushed before instituting other measures for relief.

One would think that a primary lesion could rarely be mistaken for anything else, but unfortunately such is frequently the case. There are various causes for such mistakes. Upon the appearance of a genital sore, the patient usually attributes it to the last exposure, which many times was but a few days before. In such cases it is necessary to get a history of the patient's habits for the three preceding months, during which time one will most likely find abundant opportunity for sources of infection. Mixed infections and extragenital and innocent infections probably offer the greatest stumbling blocks to proper diagnosis. There are

two kinds of mixed infections, or rather, ulcers of a mixed type. First: that in which the patient receives both a chancroidal and syphilitic infection at the same time, or at a succeeding exposure has a syphilitic infection implanted upon a chancroidal one. Second: that in which a primary syphilitic ulcer, through uncleanliness, improper treatment or otherwise, becomes the seat of a second infection of another type. These two mixed lesions vary in their clinical development. In the first class early manifestations of local infection are found, without any of the classic evidences of syphilis, all of which may be looked for in their proper time. In the latter case we have a fairly typical lesion appearing after the ordinary interval of time after exposure, but taking on rather rapidly and quite unexpectedly the appearances of an acute infection. These local symptoms are quite likely to persist until the appearance of the secondary eruption. Ulcers of a mixed type are very frequent; so often do they occur that the wonder is they are not given greater prominence in modern text books.

A patient contracts a venereal infection which develops within a few days after exposure. He consults a physician who assures him that a syphilitic lesion would not appear within so short a time. Not once in a hundred times is he told that such a lesion may yet develop independently or upon the site of the first appearing sore. Chancres with their succeeding secondaries frequently follow upon both chancroidal and gonorrhoeal infections.

Multiple chancres, too, are more frequent than our text books would allow us to believe. These lesions usually appear simultaneously or at least within a

few days of each other. Intraurethral chancres are less common, but their possibility should never be lost sight of. I have found them twice, once complicating a gonorrhœal urethritis.

With regard to innocent and extra-genital primary lesions great difficulty will always be experienced in forcing some physicians to a proper diagnosis. Unfortunately these cases are not uncommon, and one should always be on his guard regarding the diagnosis of any lesion persisting for an unusual length of time, especially if located about the mouth or throat. Physicians themselves frequently contract syphilis in the line of duty and then fail to recognize their own condition. The only way to avoid error is to exclude primary syphilis in all cases of venereal sores and single persistent lesions elsewhere.

The secondary efflorescences may be complicated, modified or masked by numerous cutaneous phenomena. The eruption is deceiving when coincident with eczema, psoriasis, and other chronic skin diseases. It is still more difficult to differentiate or diagnose syphilis concurrent with measles or scarlet fever, in which case not only the skin but also the condition of the mucous membranes adds to the difficulty of the diagnosis. In all cases where the exanthem persists beyond the usual length of time and presents any unusual points, and especially in the presence of adenopathy and unusual throat and mouth symptoms, syphilis must be excluded. It should also be remembered that frequently the secondary cutaneous eruption is an evanescent one easily overlooked by both patient and physician. In such cases one is not likely to find concurrent lesions of the mucous membranes. In addition to the varying type and de-

gree of the eruption and the possibilities of the presence of other diseases, we must remember that it may be greatly modified, delayed or aborted by early medication. The early use of mercury may so influence the course of the trouble as to absolutely prevent any apparent secondary manifestations, while a similar use of the iodides may cause a drug eruption more alarming to the patient than the unmodified lesions of the disease itself.

While it is usual that the disease develops gradually with fairly accurate intervals of time between infection, primary, secondary and tertiary stages, still these intervals are not invariable. Not infrequently the secondaries appear during the presence of the primary lesions and cases have been reported in which gummata were in evidence before the initial sore had disappeared. The headaches and various eye troubles may occur early and when so doing are likely to persist for some time.

However frequent are the mistakes of diagnosis in the primary and early secondary stages, it is the late secondary and tertiary stages as well as the hereditary cases which are more often overlooked. Gummata, necrosis and all forms of nervous symptoms are treated for everything but their true cause. I have seen one of the best surgeons in the country operate on a tibial gumma, failing to recognize its true character until too late, and then admitting that it had needed only the iodides. Nasal and palatal lesions are daily treated as purely catarrhal conditions when they are due to syphilis alone.

One of the most frequent causes for error in diagnosis is the failure to take into consideration the individual factor, the idiosyncrasies of our patients. A

physician, early in his practice having a typical case of syphilis with a fairly large persistent hard primary, followed soon after by marked secondaries, mucous patches, sore throat and enlarged glands is in danger of giving such a case a place in his mental store house as an arbitrary type. The next case, failing in some of the characteristic qualities of the first is discarded as non-specific, simply because the doctor fails of proper medical acumen and does not understand how a case can be syphilitic when there is neither an apparent skin eruption, mucous patch or history of either.

As there are cases of walking typhoid which do not rupture and are mild throughout their whole course, so are there many and many cases of syphilis so mild that the patients appear to suffer but little and rarely manifest symptoms of their disease. Unfortunately such patients in transmitting their disease do not transmit the same degree of apparent attenuation. A man with the mildest type of syphilis may infect another who will suffer from the most virulent manifestations. It is not the form or character of infection which determines the severity of the disease, but the host who receives the infection. The virus does not itself become attenuated, as regards its effect upon others, at least not by inoculation. It is true that succeeding generations of a family specifically tainted, hand down to their offspring a gradually increasing vigor and an attenuated virus or poison which eventually may become apparently extinct as regards transmission by either inoculation or heredity.

As illustrating both the individual factor and multiple lesions, I wish to cite the cases of three young men who came to me on three successive days in July,

1903. They were all strangers to each other. They had been exposed to the same source of infection at about the same time. Two had typical primary lesions differing only in size. The third man had three small lesions, each distinct and characteristic. One of these patients was an unusually bright and observing medical student who could materially assist in an intelligent study of his case. He had a slight adenopathy and slight transient cutaneous eruption with rarely a small mucous patch. I was never able to detect any cutaneous eruption upon the second patient though the inguinal glands showed enlargement and upon one or two occasions he had slight sores upon his tongue and mouth, undoubtedly mucous patches. To all intents and purposes he has never had an uncomfortable symptom from his infection. The third patient and the one with multiple lesions, had more marked glandular trouble, a pronounced cutaneous eruption with rapidly appearing and recurring mucous sores, followed soon after by severe headaches and other nervous and circulatory disturbances. He is better now, but he has had to be most thorough and persistent in his treatment since the day of the appearance of his primary lesion.

The source of the infection in these three cases was from the same woman, and at about the same time, the difference as manifested by the three patients, was due to unknown factors in each individual. Without having the full facts (the three patients and the one source of origin) one might easily have concluded he had been mistaken in the original diagnosis of the primary lesion.

As we have spontaneous recoveries from other diseases, so must we frequently have from syphilis. The failure

to diagnose such a case might do no material harm to the patient, but during that period of time in which his malady was sufficiently active to be transmitted, he might infect many others who would suffer all the serious consequences ordinarily incident to syphilis.

Hereditary syphilis will always be difficult of recognition, except in those few cases where we are able to secure a clear history of the patient and of his or her parentage. It is undoubtedly fortunate that the pregnant syphilitic mother frequently aborts; while the offspring of syphilitic parents, if not stillborn, rarely matures. As the interval of time between infection and conception widens, if the disease is combatted by proper treatment, the chances for the life of the infant increase. Its condition and development will depend entirely upon the above conditions.

If a non-syphilitic mother, pregnant by a syphilitic man, be given anti-specific treatment during the period of her gestation, the effects of the hereditary taint on the paternal side may be greatly modified.

In any of these cases of attenuated heredity, immediate symptoms may be slight or absent for months or years. The teeth of the second dentition will, however, usually show Hutchinson characteristics. The period of puberty is likely to be an unusually trying one. Nervous symptoms of a varied type are likely to appear, and true or pseudo epileptiform seizures may occur. In all such cases a diagnosis is difficult.

Considering the foregoing facts, the insidious character of the disease, its anomalies and the unlimited number of possible complications, those who practice medicine must in every case eliminate or treat syphilis.

Congenital Absence of Tibia. Transplantation of Fibula. Arthrodesis at the Ankle Joint.—T. H. Myers' patient was a boy of two years, who was perfectly developed except in the right lower extremity, from which the tibia was entirely absent. The femur was normal in shape, but slightly atrophied, and the head of the fibula articulated loosely with the upper and posterior part of the external condyle of the femur. The foot was in marked equinovarus. The leg was two and three-quarter inches shorter than the other, and, as it was useless for walking, the child had always gone about on his knees. As there was no reaction of degeneration among the leg muscles, it was thought that development would follow the use of the limb if this could be secured. The head of the fibula was accordingly freed from its attachments and brought into position between the condyles of the femur, where it was secured by suitable manipulation of the ligaments. The object

of this operation was to lengthen the limb (about three-quarters of an inch was gained) to secure a stable support for the body weight, and to preserve the mobility of the joint. The ankle joint was then opened, the external malleolus cut off, and the fibula placed squarely on the astragalus and united to it by sutures. The object was to lengthen the limb, to correct the deformity, and to secure a stable position of the foot. Recovery was uneventful, and the boy now, ten months after operation, can walk about all day with a splint, can flex his leg 90 degrees, and can almost fully extend it. The author then reviews the etiology of the deformity and cites six other cases, which he says are all that have been treated by transplantation of the fibula. While in cases of this sort a splint and high shoe will probably always be required, still this is usually preferable to the alternative, which is amputation.—*Medical Record*, July 15, 1905.

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Editorial.

THE 40TH ANNUAL MEETING AT PETOSKEY.

The 40th Annual Meeting of the Michigan State Medical Society was held during the last three days of June at the New Arlington Hotel, Petoskey, under the auspices of the Emmet County Medical Society, to the members of which the thanks of the Society were formally extended for the completeness of arrangements and the untiring efforts made for the comfort of the guests. The weather was ideal and in point of attendance and in every other way the meeting was gratifying.

The Council met the evening before and drew up its report for submission to the House of Delegates, inviting attention to the steady growth of the Society, to the condition of the County Medical Societies, to the various needs of the profession throughout the state, with appropriate recommendations for future action.

The work accomplished by the Society through its members during the year is best expressed in the admirable and exhaustive address of the retiring president on "The Past and Present Status of the Medical Profession in Michigan."

"The membership in the County Society, the most important unit in the County, State and National Societies, is being well maintained, and the cordial relations between physicians, where

formerly contention and prejudice had full swing, is most noticeable in all the counties where societies have been established under the new order of things. These results obtained through unity and re-organization have been the principal rewards and assets of the Society, and if maintained will still continue to bear fruit in the future. As a result of this organization it has been an easy matter to obtain proper and effective legislation in the matters of interest affecting the profession, and the nomination and election of one of our most worthy members to the regency of our State University has demonstrated not only the deserved popularity throughout the state of the member-elect, but has also demonstrated the practical purposes and result of state organization.

The several committees have one and all been more than ordinarily successful, due to their persistent labor and the intelligent handling of their several interests.

The Committee on the Establishment of a Sanitarium for Cases of incipient Tuberculosis. .

The labor and difficulties connected with obtaining the committal of the state to the objects of this committee were of very great magnitude, and were overcome by the continued and persistent efforts of the chairman and the members of this committee, aided by the active support of the State Organization represented by the several county societies. It is true that the appropriation made by the legislature was small, but most important is the fact that the state has been committed to the principles involved in the bill, and the work thus favorably begun guarantees its continuance under the most auspicious circumstances in the near future. An official commission under the Act will be appointed by the Governor and this commission will have the authority of the state to continue the matter along conservative yet progressive lines, and to carry out the ideas of contending with and limiting in the future the reign of the white plague in this state.

The Committee on Legislation and Public Policy.

The accomplishments of this committee this year have been most substantial and gratifying. It has to its credit no less than three bills introduced, resulting in three acts without amendment or modification. These acts passed are:

First. An act dividing the State Board Examinations into a primary and a final examination, allowing students in recognized medical colleges to be examined upon and receive credit in those subjects completed in such medical schools at the end of the second year.

Second. An act amending Section 3, Subdivision 6 of the 1903 medical act, adding to the discipline clause a provision against the employment of solicitors, runners or cappers by licensed practitioners, or the payment in any form for the procuring of patients.

Third. An act amending the penal section of the medical act providing for the trial of all cases of violation of the act in circuit courts in place of in justice courts.

All the above acts were given immediate effect.

In addition to the above acts the committee were most active and successful in defeating objectionable acts introduced with the object of modifying the provisions of the legal requirements for medical registration in this state, most important of which was the optometry bill, designed to legalize the treatment of defects of vision by so-called opticians, who carry on the somewhat doubtful business of fitting glasses and curing headaches. This bill will undoubtedly be reintroduced next session, and in the meantime county societies should prepare themselves for effective action at the proper time.

The Committee on Reduction of Time, in which Suit may be brought against a Physician for Malpractice.

The activity and good judgment of the chairman has been rewarded by the passage of an act reducing the time record from three years to two years, a very substantial modification of the former unjust provision.

The Michigan member of the National Legislative Council of the A. M. A. has as usual been most active in his services to the cause of legislation, and has accomplished a great deal in the matter of furnishing those in authority with necessary information and advice, in order that the complex subject of medical legislation could be more readily understood and measures for its promotion be practically undertaken."

And the degree to which the profession through its State and County organizations is influential in shaping medical history cannot be better stated than by quoting again from the address of President Harison:

"Finally, to summarize the past and present status of the profession in Michigan:

First. Prior to 1883 we had without any legislative restrictions whatever absolute free trade in the practice of medicine in this state.

Second. Subsequent to 1883 and up to 1899 we had legalized free trade in the practice of medi-

cine, owing to the fact that the registration act passed in 1883 was insufficient and simply recorded registrations in place of regulating such registrations. During this period of sixteen years there were some 1,500 medical registrations yearly in the state.

Third. During the period from 1899-1903 the Chandler Medical Act was enforced, resulting in the regulation of the practice of medicine in this state, driving out of the state or compelling them to cease practicing, some 1,500 persons who had gone through the form of legal registration under the 1883 act upon the qualifications of bogus medical diplomas or other insufficient qualifications. During this period only the diplomas of United States medical colleges of the first class were recognized as qualifications for registration, all other applicants for license to practice in the state being compelled to take the board's examination.

Also during this period the re-organization of the State Medical Society took place and was a most important factor in the advance of professional standing and increasing the qualifications for medical registration. The yearly registration during this period averaged five hundred.

Fourth. During the period from 1903-1905 to date, the Nottingham Amendments to the Medical Act of 1899 have been in force, resulting in raising and regulating the requirements of Preliminary and Medical Education for registration in the state to such a standard that at the present time Michigan's requirements for the legal practice of medicine is on as high or even higher plane than that of any other state in the Union.

In the important subject of medical reciprocity Michigan is held by the profession throughout the Union as not only an originator but also as a leader in the matter of effective action and ability to overcome in a practical manner problems heretofore held impossible of solution.

The State Medical Society has during this period grown satisfactorily in numbers, organization and influence, and has demonstrated that in public questions affecting the interests of the profession it is a power to be reckoned with in the proper and righteous solution of such questions.

The yearly registrations under the 1903 Medical Act average a little less than three hundred.

In comparison with other states the three forces involved in and responsible for medical status, namely: Medical Legislation, Standard of Colleges and an Organized Profession represented by the State Medical Society, I think you will agree with the conclusion that taking into account the status of the profession in 1883 and again in 1899, the present, or 1905 status of the profession in

Michigan, is not only eminently satisfactory and gratifying, but most surprising in its advance in so brief a period."

One of the most noticeable features of the result of the work of the medical profession is the great strides suggested in preventive medicine, which can, without saying, be made successful only through effective organization. The report of the Committee to establish a State Sanitarium for the treatment of the incipient stages of tuberculosis, the Oration of General Medicine (The Administrative Control of Tuberculosis), the report of the Committee to secure data regarding the prevalence of Venereal Diseases in Michigan, of the Committee to encourage the Systematic Examination of Eyes and Ears of Children throughout the State, the papers on Communicable Diseases, on Venereal Prophylaxis, on the Medical Inspection of Schools, all invoke the aid of the members of an organized body.

In Dr. David Inglis, of Detroit, the Society secures as President for the next year the services of one intensely interested in medical matters, keenly alive to its needs and self-sacrificing to its interest; thoroughly trained by education, experience and self-culture to adorn the chair; a scholar, a forcible teacher, a writer, well known throughout the state and the land; loving and beloved by his profession; a character earnest, positive, forcible, aggressive yet withal modest; original, idealistic and often an extremist, yet exceedingly practical and imbibed with a strong common sense; humorous yet of a nervous, serious, religious and kindly temperament; a strong lover of family and of nature. He was born in Detroit about 55 years ago, the son of Dr. Richard Inglis, who graced

the chair of presidency of this Society in 1869; graduated from the Detroit College of Medicine in 1871, and the Bellevue Hospital Medical College in 1872; has been engaged in active practice in this city since that date and is at present Professor of Mental and Nervous Diseases in the Detroit College of Medicine, Consulting Neurologist to Harper Hospital, etc., and a member of the various local, State, National and Special Associations.

The Society holds its next Annual Meeting in Jackson in 1906.

A. P. BIDDLE.

COMPETITION BETWEEN DOCTORS.

When two doctors want the same thing there is competition—each wants it—both cannot have it—therefore the hardest fighter secures the prize. No competition is possible when each has more than he desires, or when one is content with "the crumbs which fall from the other fellow's table."

The greater expense of conducting under graduate medical colleges, has reduced the profits, and if modern medicine were faithfully taught by competent men, unquestionably three-fourths of the present schools would be wiped from the slate. Some see this and realize that the public sentiment will support state licensing boards in enforcing present laws, and even more stringent ones. Experience has proved that competition of medical colleges is disastrous to the profession as a whole and to the people. Hence we have seen one college after another join some other or go out of business.

Those seeking that peculiar form of advertising, which comes from a "bluff" at teaching, have turned their attention

to gather in a few doctors and for a short time, to show how they do work, in the expectation that thus they will get consultations, sufficient to pay for their trouble and actual expense.

These post-graduate schools have sprung up in most medical college towns, but is questionable whether they have met the anticipations of their founders.

As we have seen one has soon been followed by another so dividing the field. Then both make specialists in from four to six weeks. As the trouble and expense of becoming a high priced specialist has thus been reduced to a minimum, a large number of specialists occupy the old fields. These pick up and manage most of the cases that formerly went to competent specialists. Farther, their diagnostic acumen finds cases that do not exist. Hence, while the post-graduate teachers get a small fee, and some personal advertising, he has manufactured specialists to pick up the cases formerly coming to them. If the men were made competent to care for the cases the laity would not suffer, but rather profit. In another the post-graduate teacher cuts his own throat in the lowered price of professional service by the specialists he has aided in making. As the cost of a six weeks' course is less than a six years' one, so can the post-graduate afford to work for less than the six year one.

Buying business is a modern method of meeting competition. One way of buying business, is to frankly offer the general practitioner, twenty-five or fifty or ninety per cent. for cases sent him. The rates for such goods tend to increase to the market limit.

Shrewd drummers have entered the trade of fereting out those needing ex-

pert surgery, and selling them to the highest bidder among doctors. This is especially prevalent about such places as Mt. Clemens, Mich., or Little Rock, Ark., but in minor degree it prevails in all noted medical centers.

Another set of doctors hunt up life insurance agents, and offer to doctor themselves and families on condition that they send them life insurance cases for examination. If this does not get the work from the regular established examiner, additional price is offered.

That competition, such as described, finally results in damage to those who engage in it, and to the profession as a whole, is overlooked in the mad endeavor to increase reputation and bank account.

Fair competition of medical schools, or private practice—a competition which benefits the profession, and honors all engaged therein—is welcomed; not that which exalts unwise standards, or degrades by underhand work.

THE FOES OF RATIONAL MEDICINE.

Lists of the foes of rational medicine, made by each physician would differ widely, but many would agree with one made by Dr. H. W. Wiley, in a late address published in *Science*, June 2nd, viz., the quack, the charlatan, and the impersonal physician. He defines these thus: The quack is a man possessing possibly high medical training and skill, but devoid of those principles of ethics without which the honorable practice of a profession is impossible.

The charlatan is a man necessarily devoid of any medical training or ability, who plays upon the feelings of his pa-

tients and administers nostrums of no value and applied with no science.

The impersonal physician is the nostrum, the patent medicine, and the proprietary remedy.

These remedies may have merit but taken as they are without the advice or consent of a physician they become not only one of the greatest foes of rational medicine but one of the greatest dangers to the public at large.

There is no justification for using the columns of the public press to deceive the public, to excite fears of dangers which do not exist and create hopes that cannot be realized.

It is for medical organizations, to win from their evil ways the quack and charlatan, and to prevent the manufacture of a fresh crop. Only thus can the medical profession stand before the people a self-respecting body and command the respect of all others.

It is for organization to make effective measures for teaching the laity the fallaciousness of a blind trust in any drug, without the guidance of skilled knowledge and honest purpose.

The progress of rational medicine is conditioned on the laity casting their unknown medicines, their lying advisors, and their ignorant leaders to the moles and the bats, and trusting upon those possessing modern knowledge with the skill to apply it to both the prevention and cure of disease.

Of these foes, the quack is the worst, because of his greater learning, larger skill, and deftness in managing human beings—he is often seen in high places, sitting among the righteous.

PENNSYLVANIA'S GOVERNOR ON OSTEOPATHY.

In spite of strenuous efforts the Pennsylvania House and Senate passed the bill to license osteopaths. At this juncture a number of Philadelphia physicians, interviewed the Governor, and he vetoed the bill.

This bill would have made it a penal offense for a doctor now licensed to practice medicine, to practice osteopathy.

The Governor says that after painstaking inquiry he was unable to determine the real nature of osteopathy. He believed however that it must contain somewhat of value in managing disease. This being true why should the state forbid doctors from using it? This would certainly be a loss to physicians, a wrong to the laity.

The passage of the bill would commit the state to a system of practice which excludes medicine and surgery. If these be useless of course they will not be used; but if occasionally valuable why exclude them from use?

Already there is a Medical Council of Pennsylvania which has charge of issuing licenses for physicians; osteopaths should pass this Council, then they may follow what facts or theories they choose in relieving the sick.

In Michigan we have operating a special law licensing osteopaths. They pose as doctors, relieving or seeking to relieve the suffering and taking pay therefor. Before the laity they are on the same plane as the most highly educated physician. Confessedly they are ignorant of what the state has established as the standard for its physicians else they would have passed the state's examining board, in operation long ere they applied for a special license.

The state's action in the matter was peculiar; by implication is told the world, such persons as pass my examining board, shall have a monopoly to care for the sick. You must spend many years, much money, labor hard during the best of your lives in preparation to pass my board, but all others must do the same. In face of this shortly thereafter the state admitted osteopaths to a practice of medicines by a different board, with far less requirement of time, money, etc.

Farther, diploma from an osteopathic college suffices to admit to medical practice—a thing not permitted the other state examining board.

As we said in a late issue with reference to optometry, the tendency is to secure entrance to the emoluments of the medical profession, by a shorter route than that first laid out—so depriving the people of that thorough training they might have in their doctors, and substituting a cheap article.

It is a clear breach of faith for legislatures to admit these cheap substitutes, for the expensive real doctor—the process however will continue unless the laity are educated to comprehend their own interests in the matter. Physicians must be the teachers, both indirect and direct. Pennsylvania's Governor has given us a good lesson.

"THE WANDERING HABIT" IN PATIENTS.

A generation ago, patients as a rule stayed with their doctor while he was able to serve them. Most never thought he was other than the best possible.

Now few if any retain such a confidence in their first doctor. Older persons

among the laity frequently remark on the change.

With this change has come a criticism of the doctors by the laity—that has induced a wide-spread skepticism of the profession in general. This skepticism has furnished a fertile soil for the growth of all sorts of "isms," "pathies," "cures," and "proprietary or patent medicine habit."

The evident cause of this change is a dissatisfaction with their doctor—springing from manifold sources; as varied social conditions, inhering partly in the doctor and partly in the patient. Additional factors are the modern hospital, free clinic, specialism, corporate and fraternal societies, and the pernicious influence of the newspaper, which daily teaches them to trust medicines without doctors, and doctors who support the press can beat the devil in lying.

We desire to emphasize a remedy available to every physician that will aid in preventing additional skepticism, if only faithfully employed.

Briefly, let every doctor who sends a patient to a specialist send a history of the case with the patient; and when the specialist returns the case to his or her doctor, send a carefully written statement of diagnosis, prognosis and treatment, account of operations done with reasons therefor, with suggestions for future conduct of the case. By this method it will be possible for the patient to have faith in both doctors—because both can tell the same story and make clear that the patient is securing the needed service. Farther, after a little the two doctors can work practically as one, and impress the laity with their power as a team, and so prevent the growth of the "wandering habit."

Dr. Denney (*Boston. Med. and Surg. Journal*, Feb. 2nd) urges hospitals to send a report of each case to the doctor sending it to the hospital, giving the essential history while in the hospital, the results of important examinations and operations or other treatment, with diagnosis and suggestion for home treatment. He thinks that in a hospital of three hundred beds the house officer could dictate this information to a stenographer in fifteen minutes daily as an average.

He is confident that such service of the hospital to its constituent doctors, would increase the faith of patients in both hospital and doctors and so check the wandering patients. Certainly it would educate physicians in the newer aids to practice, and promote medical research by encouraging the family physician to observe more closely and publish the results.

Such practice would restrict the re-crimination of physicians and hospitals; as they would be intelligent partners in caring for the same patients and have a mutual confidence born of common knowledge, mutual helpfulness and fair dealing.

As the functions of the hospital is to care for the sick, educate physicians and increase medical knowledge, Dr. Denney urges it to spend a trifle of its income in cultivating an intelligent fellowship with doctors sending it patients.

All physicians and specialists who have practiced the interchange of knowledge respecting patients they serve in common, will agree that their own and their patients' pleasure and profit have been enhanced thereby, and so the "wandering habit" checked.

If only such practice were adopted by all physicians and hospitals, the same habit might be extinguished.

The *JOURNAL* commends this matter heartily to its readers, and urges its discussion at branch meetings, and adoption by the several hospitals with which they have relations.

Just so far as each acts on the suggestion, will he add to the power of professional organization in Michigan. Begin now ere you forget—do your part to check the wandering habit.

County Society News.

LIVINGSTON COUNTY.

The Livingston County Medical Society held a meeting June 13, 1905. W. C. Huntington, of Howell, read a paper on "Treatment of Tuberculosis."

Abstract—

While the present sanatorium treatment of tuberculosis is the best treatment yet practiced, it is only the first step in the right direction. Its limitations are too great and its agencies too little under control. It involves expense which too few can possibly meet, and separation of the patient from the regular family physician and friends.

It is the attempt to surmount these limitations and render the treatment of tuberculosis practical at all times and in all places, that has prompted the scheme which you are asked to consider.

The four great factors in the successful treatment of tuberculosis are rest, fresh air, cold and feeding.

As the matter of feeding does not involve any special limitations as to time or place it will not be considered at this time.

In order to judge approximately how much rest a patient needs and how it should be taken, it is necessary to consider the nature of the benefit derived from rest.

It seems generally understood that the reduced metabolism resulting from rest, reduces temperature and allows accumulation of the material and psychic elements which constitute vitality; but is this all, or even a very important part of the benefit derived from rest? Does rest have an equal effect upon temperature in other febrile cases as in pulmonary tuberculosis, and if not, why not?

Before attempting to answer this question let us inquire why it is that tuberculosis almost always attacks the apex of the lung first.

To myself it seems largely a matter of gravitation. Two-thirds of one's time is spent in upright positions. We all know the tendencies of the circulation to gravitate away from superior portions, especially in cases of debility. We also know that the lungs are held in position largely by atmospheric pressure and that this force produces the greatest compression of blood vessels in the portion of lung which is at the time uppermost, and hence for two-thirds of the time the apices are relatively anaemic and consequently their tissues are first to suffer devitalization and loss of power of resistance from malnutrition.

This being true obviously the first step in treatment should be to maintain equilibrium of circulation or perhaps even relative hyperaemia of the affected apex, which can only be done by rest in the horizontal position.

As a tubercle is a non-vascular burrow within which the bacillus is safe from intrusion, the only manner of cure is to surround it with a capsule which will inhibit migration of germs and, contracting, squeeze out the soluble portions until it is reduced to fibrosis or calcification, or both, or form a cavity wall when ulceration discharge of contents occurs.

This incapsulation is accomplished by means of the circumscribed pneumonitis which surrounds the tubercular focus, and hence this inflammatory process must be regarded as constructive rather than destructive. It is the latter only when owing to inferior organization the formed tissue becomes the home of the bacillus rather than of the leucocyte, in which case it partakes of the nature of the central mass and undergoes the same changes and, in fact, constitutes an extension of the disease. In producing a cure, the capsule must be constructed through air cells and across bronchi which are constantly disturbed by the respiratory act, which disturbance, except during absolute rest, is frequently varying in degree.

In addition to this, each inspiration brings in a swarm of germs whose function it is to disorganize and liquify the forming capsule and in doing it, generate toxins which poison the system and lower its vitality and power of repair.

The task for nature in these cases is much like the repair of a broken bone. Under ordinary circumstances union occurs, but if there is too much disturbance we may get non-union, and the case is still worse if the fracture is compound with free access of unsterilized air. Tuberculosis tends to recovery when it occurs in tissue whose function does not too greatly disturb the process of

repair, and to which air does not have access, but in pulmonary tuberculosis there is constant disturbance, with free access of air, and the conditions are similar to a constantly disturbed compound fracture.

Now the recumbent posture, with the affected lung never uppermost, approximates the conditions to those in which recovery takes place spontaneously as closely as it is practicable to do.

How long should the patient remain in bed? This depends entirely on the individual case.

When my son arrived at the sanatorium he was not weak enough to be unusually fatigued by the journey and yet he was put to bed in the infirmary and kept there two weeks. During this time his chills ceased, his temperature subsided, and he gained 6½ pounds or almost ½ pound per day. As his recovery was exceptionally rapid, the time spent in bed was less than would ordinarily be best. As an illustration of the other extreme, while there I met a young man in his bed on the veranda of the infirmary who had at that time been eight months in bed and was improving. Three months later he left his bed enough to go to his meals, subsequently left the institution much improved, and is now living in Grand Rapids, Mich.

As a general rule the patient should probably be in bed whenever his daily temperature rises above 100 degrees; for Dr. King told me that his greatest handicap was the unwillingness of patients to remain in the infirmary long enough.

Since fresh air has proven so beneficial, might not sterilized air prove more so, especially if it could be more conveniently and thoroughly applied? In pursuance of this idea I have devised an apparatus for the administration of sterilized air. It consists of a valvular face mask connected by a flexible tube with the sterilizer, which is constructed on the principle of the washing bottle, with broken quick lime in place of fluid, above which, resting on a screen is cotton wool through which the air is filtered. Contact with the quick lime is expected to eliminate some of the carbonic acid and moisture, and the filter to remove dust and germs. A much larger sterilizer than the one shown would probably be better. It would provide longer contact between the air and lime, with increased elimination of carbonic acid and moisture, and the increased area of filter would allow the passage of the same amount of air with less resistance. This resistance should not be sufficient to promote hemorrhage or induce fatigue. The resistance of this sterilizer is hardly appreciable and probably does not call for more effort than respiration at high altitudes. The mask should be fastened by a flexible band, so

as to raise readily for the purpose of expectoration.

Cold is one of the most potent factors in the treatment of tuberculosis. It reduces fever, promotes appetite, digestion and assimilation and increases the weight and vitality; but cold and fresh air cannot both be had ordinarily, except in cold weather. With the use of the sterilizer only moderate ventilation of the room would be required and hence the temperature could be much more under control. By packing the sterilizer with enough ice and salt, not only the temperature of the inspired air, but that of the entire room, could be reduced to perhaps any necessary extent.

As "the best laid plans of mice and men gang oft a-glee" so all of this might on trial prove disappointing, but I hope that it will at least serve to give us something to think and talk about.

R. H. BAIRD, Sec'y.

OAKLAND COUNTY.

At the meeting of the Oakland County Medical Society June 13, 1905, D. G. Castell of Pontiac read a paper on "Choice and Administration of Anesthetics."

Abstract—

The responsibility of selecting the anaesthetic for the case in hand, and carrying out its proper administration, is no small matter. In many operations the anesthetic is the major risk, and in every case, even if perfectly sound and healthy, should the patient claim the constant and undivided attention of the one administering it. Accidents happen to the perfectly sound and healthy subject. This is especially true with chloroform, as its risks are proportionately greater than with ether; for the sound and healthy person may take ether with a minimum of danger. As a rule, the laity fail to appreciate the relative importance of the anaesthetist, and have not been educated to properly remunerate him for the responsible services he renders.

To wisely select the anaesthetic for a patient, must infer, on the part of him making the selection, a correct knowledge of the drug; as to its chemistry, its physiological effects, both direct and indirect, and its dangers and limitations; and to properly administer the anaesthetic one must equally well know the patient, as to his physical condition, and, when possible, his idiosyncrasies.

Anaesthetics may be classed as general and local. Chloroform, ether, nitrous oxide, ethyl chloride and ethyl bromide, and mixtures of

chloroform, ether and alcohol, are the general anaesthetics in use.

The use of nitrous oxide and ethyl chloride, in general practice, on account of the complicated and cumbersome apparatus for their administration, are not practicable. The mixtures of chloroform, ether and alcohol are unreliable on account of the difference in their volatility. Of chloroform and ether, each has its merits and its limitations. Chloroform is the more dangerous of the two. The margin between its surgical anaesthesia and the lethal dose is much narrower than with ether. Its dangers appear quickly, and often with little warning. Chloroform depresses the heart and circulation, lowering the blood pressure, while ether stimulates the heart, raising the blood pressure and stimulates the respiration; but if pushed excessively is said to cause death by paralysis of the respiratory centers.

On account of its stimulating effect, ether is not adapted for cases in which the respiratory tract is sensitive or irritable, as in inflammatory conditions, such as laryngitis, bronchitis, etc., or in cases in which the breathing is interfered with, as in cases of pressure from large goitre, thyroid, pluritic fluid or marked acites, etc. It is not adapted to use in case of infants, the aged, or those in which there is a weakened condition of the vessels, as in atheroma.

Ether has a very stimulating effect on the secretions of mucus and saliva, which in some cases is very annoying. It is found that a hypodermic of atropine, or morphine and atropine, or hyoscine hydrobromate, has a very beneficial effect of lessening and controlling these secretions.

Of the relative safety of ether and chloroform, statistics vary somewhat, yet accidents happen about once in three thousand administrations with chloroform, and about once in fifteen thousand with ether.

Ether should always be given the preference, unless for some reason contraindicated. Yet ether, on account of its greater safety, is often allowed to be given by the inexperienced, with the chance of the patient getting more than is necessary, becoming soaked and more or less choked up with mucus, thus greatly increasing the risk.

No one should assume the responsibility of administering chloroform or ether unless he is thoroughly acquainted with all the signs and symptoms, and is prepared to do the right thing and do it promptly in case of emergency. Every person does not act the same under anaesthesia. There is no one safe and reliable sign, but all

signs and symptoms must be constantly watched and one be guided by the general picture.

In the use of chloroform, when the pupils narrow down small and remain unmovable, the conjunctive reflex disappears, all muscles relax, especially the muscles of the jaw, and the breathing becomes regular and deep as in profound sleep, we have a picture of surgical anaesthesia. Yet these signs are not always to be relied upon. Rigidity of the jaw muscles may persist, in some cases, even when the patient is thoroughly under the anaesthetic, and it would now greatly endanger the patient to push the anaesthetic, hoping to relax these muscles. In such cases, if the jaw is worked back and forth, this rigidity will pass off and the muscles relax without more of the anaesthetic. The pupils do not always give reliable evidence. After they have been once caused to dilate from pain, as from the extraction of a tooth, or the dilating of the sphincter, they do not always contract down again, and it would be unsafe to push the anaesthetic with the hope of so doing.

With chloroform the condition of the pulse must be constantly watched, also the skin and mucous membrane—the ears, nose and lips. The cyanosed skin and membrane indicates need of air; a pale, ashy hue to the skin should excite our fears at once, as it indicates danger, and active measures are necessary to avert collapse. The handling of sensitive parts often demands temporary withdrawal of the anaesthetic, when the temptation is to crowd it. A few deep inspirations of the anaesthetic at this time might be more than the patient could stand, and certainly be more than needed. A fixed, dilated pupil under chloroform means danger and must not be ignored, as collapse is imminent.

For impending collapse heat is of the utmost importance. Hot injections (115 degs. F.) by the bowel, hot external applications, friction and massage; subcutaneous injections of sterilized normal salt solution, or better still, intravenous injections, are of great value in bringing up the blood pressure and restoring the circulation. Deep injections of ether into the muscles, hypodermics of strychnine, atropine, digitalin and glonin, rhythmic traction of the tongue, artificial respiration, compression and massage over heart, lowering of head, and other measures as indicated, must be thoroughly understood by him who assumes the responsibility of giving the anaesthetic, and he must be prepared to execute them with promptness, as occasion arises.

The manner of administering the anaesthetic is of much importance. It is of the utmost importance that the patient gets plenty of fresh

air, with ether as well as with chloroform. The closed method of administering chloroform or ether should be condemned. With the closed inhaler, such as the Clover inhaler, asphyxia from lack of air, or breathing foul air, constitutes part of the anaesthesia, and thereby greatly contributes to the risk. Such inhalers are unclean, and there is some risk from conveying infection in this way. The open mask or inhaler, in which fresh gauze may be used each time, and which provides for free access of fresh air, is the only safe and proper way to administer ether or chloroform.

The room in which the anaesthetic is given should be at a temperature of about 80 degrees F., and should be well ventilated. There should be good light, in order that any change in the color of the skin, condition of pupils, reflexes, and other signs and symptoms may be clearly observed.

The patient should always have a preliminary examination, and preparation when possible. The urine should be examined, especially if the anaesthesia is to be of long duration. The bowels moved by a saline laxative, and no solid food taken within forty-six hours of the anaesthetic; yet some stimulating liquid food, two or three hours before its administration, puts the patient in better shape for the anaesthetic and the operation. In examining the patient do not excite the patient by dwelling on any one point, yet have him feel that you have been thorough, and thus gain his confidence, and set aside any fear he may have entertained as to his fitness for the anaesthetic. If possible have the patient undressed, and in a loose robe, or in his underclothes. If not undressed inspect his clothing carefully, that there may be no interference with the circulation and the breathing. Inspect the neck bands, wristbands, waistbands, garters, shoe laces, and see to it that the clothing does not bind under the arms or elsewhere. Inspect the mouth as to false teeth, tobacco, gum, or any foreign substance the patient in his nervousness may be holding there.

When ready to give the anaesthetic have everything quiet. The patient should not be disturbed by the rattling of instruments and other preparations, or be within hearing of conversation relating to the operation. The more composed his mind the better, as the going under stage is recognized as a period of danger.

Have the patient assume a natural, easy position, flat on his back, with very little, if anything, under his head, and when necessary have him protected with a light, woolen blanket. Begin the anaesthetic by giving a small amount, and

hold the mask well away from the face at first, to avoid the sense of suffocation. Give the anaesthetic gradually, and as soon as the higher centers show signs of co-ordination push the anaesthetic until they are under control. Keep the jaw well forward, and push the anesthetic, when warned by the preliminary hiccough, or retching, of the onset of nausea and vomiting. Do not let the surgeon hurry you, or commence before you give him permission. When the patient is brought up to surgical anaesthesia, hold him there. Very little additions of the anaesthetics, if properly applied, will now be necessary.

The patient is now completely in your hands, and you must think for him, feel for him, and carefully guard him from harm. Do not allow his chest to be weighted down with a tray of instruments, or the assistant's arm. Guard against the patient's arms getting off the table, or twisted under him, with the chance of causing pressure paralysis. See to it that the patient's throat is kept clear. When the patient vomits, or throat fills with mucus, turn his head to one side, so it may be expelled, or run into his mouth, where it may be swabbed out without running the swab into his throat. Guard against unnecessary exposure and chilling of the patient; keep him warm, and when such measures are indicated do not wait until after the operation; use hot water bottles and other measures as soon as there is evidence of their need. Do not continue the anaesthetic a minute longer than is absolutely necessary. The less the patient is moved after the anaesthetic is discontinued, the less likelihood of nausea and vomiting. Food is not usually well borne for twelve to eighteen hours afterward. To allay the thirst a teaspoonful of hot water may be given every fifteen to twenty minutes, a little salt added to the water is beneficial. The injection of a quart or more of normal salt solution, by the bowel, is helpful in case of suppression or delayed secretion of urine.

The subject of local anaesthesia has of late received much attention. Their use, as a rule, entails much less danger to the patient, and for the simpler, minor operations there is certainly no excuse for the general anaesthetic with its attendant risk and discomfort. Local injections, or the ethyl chloride spray conveniently enable one, with little discomfort, and no danger to the patient, to incise boils, abscesses, and like conditions, to remove growths and tumors in the skin, and adjacent structures. The ethyl chloride spray, very conveniently enables one to trim ragged tissue and pass stitches. Local injections are being successfully used in the operations on

piles, prolapsus ani, varicose veins, hydrocele, varicocele, and for hernia; and in cases in which a general anaesthetic is contraindicated, for major operations, as abdominal operations, or removal of the breasts. Yet the local anaesthetics have their limitations, and are not adapted to all cases. With the nervous, sensitive patient, it is not entirely free from shock. The slight attendant discomfort to the patient, in some cases, might hurry the surgeon to complete his task with less attention to the detail than he might exercise under the general anesthetic. Solutions of cocaine, eucaine, normal salt and sterilized water, and ethyl chloride, and ethyl bromide sprays are the local anaesthetics most generally used. Solutions of adreniline chloride are used in the solutions of cocaine, and eucaine, lessening their toxic effect, prolonging the anaesthesia and lessening the hemorrhage.

To anaesthetise the skin the injection is made into the skin, not under it, with a fine needle, gradually forcing the fluid into the skin until a white, shiny wheal is formed, then pushing the needle along to an adjacent area, until the desired surface is anaesthetised. The deeper structures are then injected, and when a nerve supply the structures operated on, is exposed, the solution is injected into its sheath, causing anaesthesia of the region supplied by its branches.

On account of the toxic and untoward effect of the stronger solutions of cocaine, much weaker ones are now used, and are found just as effective. The injection of sterilized water, or, better still, sterilized normal salt solution, successfully produces anaesthesia by mechanical pressure, though such anaesthesia is of short duration, passing off as soon as the fluid is absorbed, or allowed to escape by incising the tissue.

In conclusion I would say, use the local anaesthetic whenever it answers the purpose. When a general anaesthetic is used do not any more think of placing it in the hands of the careless or unqualified person, than in placing the knife in the hands of such a person to perform an important operation.

R. Y. Ferguson of Pontiac read a paper on "The Surgical Treatment of Appendicitis."

Abstract—

To my mind there are two ways in which the life of a patient suffering with appendicitis may be menaced, either he may fall into the hands of a dangerous surgeon or into the hands of a less safe non-surgical physician. Life may terminate untimely in either case. To my mind, after seeing, feeling and in some instances even smelling, I am fully satisfied that the only rational and

safe treatment of almost every case of appendicitis is cautious, clean and timely surgery.

In every case of appendicitis there occurs a period of time up to which operation interference should have no mortality whatever, excepting the ordinary surgical mortality attributable to the anaesthetics, etc.

Of the methods and advice concerning the technic, etc., there is no end, consult your text books and use ordinary sense. Much has been said concerning the Oschner treatments. Let it be understood that this is entirely a preparatory treatment and not at all designed to displace the operation treatment. His statistics speak volumes in favor of it and unquestionably carried out with his exactness must be beneficial in many cases. It necessarily involves absolute control of the patient, not forgetting the family as well. Nowhere, in my opinion, except a hospital can this be accomplished.

The operation per se is simplicity itself and is, I am certain, within easy reach of any of us, providing inertia is not too firmly established.

Let it be understood, a great array of instruments is not required; after you have collected a trayful you will probably find you have made use of only a few, perhaps nothing but a knife, a few pairs of artery forceps, a pair of scissors and retractors. Let simplicity rule. Thus prepared and given the case, it will depend largely whether the diagnosis is an early or late one. Early and before widespread infection has taken place, the greatest precautions are to be observed to prevent additional outside infection, it being desirable to close the wound completely. Make your incision, split the muscles and use retractors. The peritoneum is easy to recognize, you will not cut the bowels unless adherent, which it seldom is. Find the appendix and remove it in the most approved manner. Cut the appendix off and close the opening with a purse string suture. That is about what they all do, in substance. It is simple and requires only ordinary skill. To keep your hands and those of your assistant and the peritoneum uncontaminated, requires a great deal more—rubber gloves are an absolute necessity. On the other hand, in late cases we are liable to be confronted with various difficult and perplexing problems. Fortunately this is not the rule and such cases often involve no greater skill than the opening and draining of an abscess. These are the kind that always get well. Do not be alarmed if you cannot find the appendix, give the pus exit and recovery will follow. Too ardent searching and mauling the bowels in the quest for the offending organ cannot be too strongly condemned, adhesions are broken up,

infection spread and may be a fatal peritonitis lighted up.

Here are some of the questions that have given me anxious and perplexing moments: First of all, making myself and the patient's family understand that operation so soon is essential. The information falls like a calamity upon them and often requires a strong influence in order to have them see it in the proper light (and this is just the place where the conciliatory consultant can get in fine work with the wavering family to the detriment of the patient and chagrin of the attendant.) Along with this the downing of what is, I believe, inherent in most of us, that tendency to optimism and hopefulness for amelioration of the symptoms until that happy period has passed.

Another annoying question that will bob up just about the time you make the incision, is the thought that you may perhaps not be able to find the miserable organ at all. This is not a serious one, keep cool and go slow. If the organ be in the center of an abscess you may never find more than its corpse. It may be necrotic with nothing but the enclosed concretion left. Stop right there and it will be all right. If the appendix be free you will be able to feel it directly with one finger introduced or better still see it with both retractors and gauze in place. If this fails, follow the cecum and it will find it for you. Shall I irrigate? The desire to wash out the pus is hard to down, but unless you have a surely defined abscess do not do it. Even then as in empyema simple drainage is perhaps best, pack back the bowels with loose gauze and wipe out the pus gently. Always put in drainage when you have a pus accumulation, maybe in some instances this could be dispensed with, but you will sleep better if you do it and your patient will be none the worse for it. The only possible difference it can make might be in the length of convalescence and likelihood of subsequent hernia. Better for you have him alive with a weak abdominal wall than dead with a nicely closed wound. Drain with a couple of good-sized soft rubber tubes, say one-half inch in diameter, or a cigarette drain, a device that I have resorted to and the handiness of which I think far exceeds that of the gutta-percha covered gauze, is a roll of gauze over which is rolled an ordinary condom with the end cut off. Try it next time. Gauze in itself will not drain pus.

First time I saw a fecal fistula, I saw a casket at the same time and had visions of all kinds of trouble. Keep it clean and fear not, it will surely close in a few days. If the tube comes out it may give you trouble to put back, especially in

a child. In one fractious youth I had repeatedly to give an anaesthetic before I could satisfactorily wash out the sinus. Put a stitch through the skin and tube if necessary that will hold it. After two or three days it is well to remove the tube and it will be easy then to place it in the channel it has made for itself.

Flatulence I have found a troublesome sequel and sometimes hard to manage. Withhold food and use the colon tube. I have had one case of ileus that was, I believe, due entirely to the displacement of bowel from flatulence, anyhow starvation and the rectal tube gave gradual and finally complete relief. It is a hard proposition to be able to stand across the room and see the violent peristalsis during a paroxysm. Too early use of cathartics is to be avoided. Give opium if need for the relief of pain post operative.

In conclusion, I believe many cases of appendicitis, the majority in fact, recover without surgical interference. No one pays particular attention to the recovery of a mild case under the expectant method of treatment, all of us have had them, a false security indeed. But there finally comes the Waterloo for both the patient and the physician, sooner or later the blow will fall. One death calls forth greater adverse criticism than a hundred recoveries can ever undo and it is just these soul-racking exceptions that surgeons of wide consultation practice are called upon to witness and has fixed so indelibly in their minds, the opinions, that the best results are obtained by the removal of the organ in the early hours of the disease. Look over the literature and experience of all the master minds in the work, both surgical and medical, and you will find scarcely one dissenting voice.

The diagnosis is comparatively easy. One surgeon has said, "When in doubt operate." No doubt he has at some time been amazed to find on opening a comparatively mild case a perforated and gangrenous appendix in which waiting for certain symptoms to develop would have proved fatal. Dr. Deaver says, "The disease is so prevalent and the cases observed by every practitioner so numerous that one can but wonder at the continuous stream of pus bearing abdomens that flow into a large hospital yearly. Every physician has had one case of severe appendicitis which may have caused him difficulty in diagnosis, has referred the case to a surgeon, stood beside the table and observed a highly inflamed, perhaps gangrenous appendix removed, and yet this same physician a few months or years later, is called to see another patient in the throes of appendical colic, knows well what the

disease leads to and yet gazes fascinated—as if by a rattlesnake until the right iliac fossa becomes ripe and filled with pus." Farther on the same writer states the following emphatic principle: "That in every case of appendicitis seen early, operation is indicated regardless of the mildness or severity of the attack in the absence of spreading peritonitis." Who would have the temerity to question his advice in the light of his experience and conclusive statistics: 159 acute cases between January and June, pus by the gallon, and a mortality of 5 per cent. Then why hold back?

Oschner records: 255 acute cases without perforation and five deaths; 172 with perforations, four deaths. Then wherein lies the excuse for delay? Any intelligent painstaking man can do the operation if he only will just as well as he.

Be prepared at all times, and above all do not temporize as Deaver says, "Do not stand with hands in pockets and dilly dally. Don't give calomel and call in consultants, open the abdomen and take out the trouble."

One more conclusion, do the job yourself, do not let someone do it for you in a hospital, any house is good enough to save a life in. Do it yourself and get the credit and incidentally the fee, which belongs rightfully to you.

The following fee bill was adopted, and a copy of it was sent to each member:

We, the committee appointed by your Society to formulate a schedule of prices for post-mortem examinations done for Oakland County, do hereby submit the following for your consideration:

I. For preliminary examination of dead body, including report to coroner's jury, a minimum charge of ten dollars (\$10.00) shall be made.

II. For a complete post-mortem examination, including a report of the macroscopic findings to a coroner's jury, a minimum fee of thirty dollars (\$30.00) for each physician employed shall be charged.

III. For attendance and expert testimony in Circuit Court, a minimum fee of twenty-five dollars (\$25.00) for each day or fraction thereof shall be charged.

(Signed)

WM. MCCARROLL,
N. B. COLVIN,
W. J. McNEILL,
T. E. McDONALD,
J. L. CAMPBELL,
C. D. MORRIS,
Committee.

M. W. GRAY, Sec'y.

Medical News.

A new journal, "*Surgery, Gynecology and Obstetrics*," has been established and the initial number has appeared. Published in Chicago, by the Surgical Publishing Company, and edited by Dr. Franklin H. Martin, it is designed to cover the field of the three allied specialties represented by its title.

The first number contains ten original articles and the complete proceedings of the recent meeting of the American Gynecological Society, together with excellent editorials and abstracts. The form of the journal and the press work leave nothing to be desired.

Dr. Massilon Cassat has presented the Cincinnati Academy of Medicine a library of three thousand volumes on medicine and allied sciences. The development of the Michigan profession would be greatly advantaged by a large reference medical library.

New York has provided for a Hospital Jail for inebriates or drug habitues. Such may be committed by City Magistrates or Supreme Court Judges. Excise money will pay for building and site. Every city should have the privilege of such an institution. Confirmed drunkards would have a powerful bracer in the fact that on release the mere fact of drunkenness sufficed to return them to the detention hospital.

The Illinois Legislature adjourned leaving unpassed six osteopathic bills, two optometry bills and one anti-vivisection.

During 1904 three thousand men fell suddenly dead in New York City, an increase of five hundred over any previous year. During the first three months of 1905 there were seventeen hundred sudden deaths. Surely the pace that kills is set in that city.

At a dinner given in his honor, on May 2d, in New York, Dr. Osler expounded his three rules of conduct—to do the day's work well, unthinking of the morrow; to follow the golden rule, and to cultivate a certain measure of equanimity.

The total number of deaths from tuberculosis in Indiana, as reported by the State Health Board, was four hundred greater during 1904 than during the preceding year.

The last Wisconsin Legislature gave its Health Board the power to refuse to grant or to revoke licenses of physicians found guilty of immoral or unprofessional conduct.

Rush Medical College has added a fifth year to its medical course—optional for the present. Such a year spent as interne to a good hospital is greatly to be desired.

Permission was refused the City of New York to establish a tuberculosis sanitarium on the top of the Shawangunk Mountain, near Bloomingburg. Fear that their summer residence trade would be ruined dominated this action.

Dr. W. H. Sanders, of Montgomery, Ala., in a long letter to the *Medical Record* concludes that the present constitution of the American Medical Association is null and void, because unanimous consent was not obtained at St. Paul.

An Association of Laboratory Workers has lately been formed under the auspices of the New York Academy of Medicine. It proposes to diffuse scientific knowledge by public lectures from experts, and so bring the scientific and practical physicians closer together. The first course will be given during the winter of 1905-6, on Saturday evenings, at the Academy of Medicine.

At his late seventy-seventh birthday, a number of his friends gave a dinner at Delmonico's, New York City, in honor of Dr. Thomas Addis Emmet.

The Secretary of the Iowa State Board of Health has requested the physicians of that state to keep their faces cleanly shaven, lest they disseminate infection. It is strange he did not advise them to keep their entire heads cleanly shaven, for the same reason.

Mrs. Mary Stockdale, of Flint, Mich., by her will, left thirty thousand dollars to each of nine hospitals and other charitable institutions in Detroit and Buffalo.

Schiller was a physician, but neither he nor medicine reaped any benefit therefrom.

The Riforma Medica says that the people of Italy consume six tons of quinine yearly.

Baron A. de Rothschild built and equipped the first ophthalmic hospital in Paris.

The Association of Military Surgeons of the United States will meet in Detroit, September 26 to 29.

Among the important conventions that Detroit will entertain this year is that of the Association of Military Surgeons of the United States, which will hold its sessions there on September 26 to 29. This organization is an extremely important one, including as it does high officers in the medical service of the army, the navy, the public health and marine hospital service, and the medical department of the state divisions of the national guard. Recent advances in medicine and surgery have made the medical corps of the land and the naval forces of the country a prominent factor in the make-up of the service, and the value of its services has never been more generally recognized than it is now. The work now being done by the medical corps of the Japanese army and navy is an instance of the highly developed condition of modern medical and surgical practice in war.

Aims of the Association.

In general, the aims of the association are:

1. To establish military practice as a specialty.
2. To quicken the development of military medicine and surgery by the constant agitation of all topics pertaining to them.
3. To encourage mutual acquaintance between military surgeons and to promote social intercourse.
4. To establish between the medical officers of the national services and those of the State troops a reciprocal exchange of views and ideas.
5. To provide an appreciative audience, not only by attendance upon meetings, but also by reading the publications of the association, for the presentation of advances along the lines of military medicine, surgery, sanitation and equipment.
6. To create a living body of military medical literature in its publications and to stimulate thought and labor along medico-military lines.
7. To stimulate legislation beneficial to the medical departments of both national and state military and naval establishments and to forward the organization of the medical staff in the various states upon a healthy basis

independent of the caprice of commanding officers.

8. To maintain an esprit de corps among medical officers, the existence of which shall insure scientific enthusiasm and unity of action in matters involving the welfare of the medical department in all military organizations.

The Officers.

The officers of the association for 1904-1905, and the arrangements committee for Detroit, are as follows:

President—Surg.-Gen. Walter Wyman, P. H. and M. H. S., Washington, D. C.

First Vice-President—Lieut.-Col. Albert H. Briggs, N. G. N. Y., Buffalo, N. Y.

Second Vice-President—Brig.-Gen. Robert M. O'Reilly, U. S. A., Washington, D. C.

Third Vice-President—Rear Admiral Presley M. Rixey, U. S. N., Washington, D. C.

Secretary—Maj. James Evelyn Pilcher, U. S. V., Carlisle, Pa.

Treasurer—Maj. Herbert A. Arnold, N. G. Pa., Ardmore, Pa.

Committee of Arrangements for 1905 Convention—Lieut.-Col. Julius F. Henkel, M. N. G., 270 Woodward avenue, Detroit, Mich.; Surg. H. W. Austin, P. H. and M. H. S.; Maj. V. J. Hooper, M. N. G.; Maj. C. M. Gandy, U. S. A.; Capt. J. E. Mead, M. N. G.; Lieut. Samuel C. Gurney, M. N. G., Secretary, 10 Adams avenue west, Detroit, Mich.

On June 14, 1905, Prof. Johannes V. Mikulicz Radecki died in Breslau at the age of fifty-five from carcinoma of the stomach. At the time of his death he was professor of surgery at the University of Breslau. Dr. Mikulicz is well known for his work in a great variety of surgical subjects and for his comprehensive knowledge of surgery and its allied branches.

Within a few days of the death of Prof. V. Mikulicz the death of Karl Wernicke was announced. He was 57 years old. In 1890 he became professor in psychiatry and neurology at University of Breslau. Within a year he had become Hitzig's successor at Halle. Wernicke's aim was to establish psychiatry on a firm scientific basis and to bring it, as far as possible, into association with brain anatomy and brain physiology.

Prof. Hermann Northnagel died in Vienna July 7, 1905, age 65 years. He was the last of these three remarkable men to pass into the great unknown.

The following is the result of the election of officers at the A. M. A. meeting at Portland on July 13, 1905: President, William J. Mayo, of Rochester; first vice-president, Surgeon-General Walter Wyman of Washington; second vice-president, A. J. MacKenzie of Portland, Ore.; third vice-president, Eugene S. Talbot of Chicago; fourth vice-president, Edwin D. Martin of New Orleans; general secretary, George H. Simmons of Chicago; treasurer, Frank Billings of Chicago; members of the board of directors, E. E. Montgomery of Pennsylvania, A. L. Wright of Iowa, and H. L. E. Johnson of District of Columbia.

Mr. Colin, a Russian experimenter, claims to have effected a stable solution of radium emanation in distilled water, from which believers in therapeutic virtues of radium hope for hitherto unattainable good results.

Miscellaneous.

CHANGE IN MEMBERSHIP.

(June 10 to July 15.)

NEW MEMBERS.

R. C. Allen, St. Joseph, Mich.
W. M. Boylan, Grawn, Mich.
S. E. Bryant, Dowagiac, Mich.
R. B. Canfield, Ann Arbor, Mich.
George Clippinger, Pipestone, Mich.
K. L. Crawford, Ann Arbor, Mich.
V. H. DeSomooskeoy, Coldwater, Mich.
G. E. Gallen, Hancock, Mich.
E. B. Gibson, Ann Arbor, Mich.
J. J. Goodyear, Ann Arbor, Mich.
C. Harris, Hillsdale, Mich.
J. J. Haviland, Lennon, Mich.
J. W. Hawkey, Harietta, Mich.
S. R. Haythorn, Ann Arbor, Mich.
W. L. Helkie, Three Oaks, Mich.
H. D. Imus, Olive Centre, Mich.
John Jackola, Hancock, Mich.
D. Johnson, Marion, Mich.
D. M. Kane, Ann Arbor, Mich.
J. Kapp, Ann Arbor, Mich.
C. E. Keeler, Ann Arbor, Mich.
T. Kimball, Fife Lake, Mich.
L. A. King, Baroda, Mich.
C. S. Lane, Whitmore Lake, Mich.
R. H. Leece, Munith, Mich.
J. S. Little, Sanilac Centre, Mich.
D. W. Loree, Ridgeway, Mich.

G. H. Lynch, Traverse City, Mich.
J. D. Mars, Ann Arbor, Mich.
J. B. Martin, Traverse City, Mich.
E. P. Mills, Holly, Mich.
C. A. Montague, Charlevoix, Mich.
P. E. Moody, Detroit, Mich.
J. F. Munson, Ann Arbor, Mich.
C. M. Myers, Dowagiac, Mich.
K. Noble, Milan, Mich.
T. W. Paton, Ypsilanti, Mich.
C. G. Parnall, Ann Arbor, Mich.
M. B. Prentiss, Hudson, Mich.
B. Rosenberry, Ann Arbor, Mich.
A. H. Roth, Ann Arbor, Mich.
C. L. Rumph, Hubbell, Mich.
C. H. Rupprecht, Calumet, Mich.
L. F. Sipher, Traverse City, Mich.
T. Sleneau, Port Huron, Mich.
G. Slocum, Ann Arbor, Mich.
F. H. Smith, Willis, Mich.
J. L. Smith, Durand, Mich.
G. E. Stripp, Ann Arbor, Mich.
C. F. Tenny, Ann Arbor, Mich.
G. H. Thomas, Holland, Mich.
E. W. Tonkin, Edwardsburg, Mich.
D. C. Urie, Ann Arbor, Mich.
J. A. Vaughan, Ann Arbor, Mich.
V. C. Vaughan, Jr., Ann Arbor, Mich.
W. G. Wright, Yale, Mich.
W. C. Wylie, Dexter, Mich.
C. R. Wilcox, Ann Arbor, Mich.
C. Woodbridge, Saline, Mich.

CHANGE OF ADDRESS.

Guy Bailey, DeSmet, Idaho.
O. F. Broman, Greeley, Col.
T. M. Buckley, Chicago, Ill.
C. Oswald Dedrick, Detour, Mich.
Mary E. Green Fiske, Tulsa, Ind. Ter.
G. E. French, Pompeii, Mich.
Mary E. Green, Tulsa, Ind. Ter.
T. C. Henry, Cowan, Ind.
D. A. Link, Marcellus, Mich.
C. L. Patton, Springfield, Ill.

BOOKS RECEIVED.

PSYCHIATRY. By Stewart Paton, M.D. J. B. Lippincott Co. Philadelphia and London. 1905.

THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA. Eighth Decennial Revision. Revised by the Committee of Revision, and published by the Board of Trustees. Philadelphia. 1905.

STUDIES IN THE PSYCHOLOGY OF SEX—Sexual Selection in Man. By Havelock Ellis. F. A. Davis Co., Publishers. Philadelphia. 1905.

Book Notices.

Under the Charge of

RAY CONNOR.

ACUTE CONTAGIOUS DISEASES, a work embracing the careful study of nearly 10,000 cases each of Smallpox, Scarlet Fever and Diphtheria, in addition to very many cases of the other diseases discussed, namely Vaccinia, Measles, Chicken Pox, Rubella and Typhus Fever, by Wm. A. Welch, M. D., and Jay F. Schamberg, A. B., M. D., of Philadelphia. Illustrated with 109 Engravings and 61 full-page Plates.—Lea Bros. & Co., Philadelphia and New York. 1905.

This excellent work is the result of the labor of thirty-three years of Dr. Welch as physician-in-charge of the Philadelphia Municipal Hospital for Contagions and Infections, and of many years of Dr. Jay F. Schamberg, Consulting Physician to the Municipal Hospital, in a field which for extensiveness and opportunity for study and observation is vouchsafed to but few of us, and among diseases which are liable to fall to the daily task of any general practitioner of medicine in the land. There is probably no other disease in which an error of diagnosis is more fatal alike to the physician and the patient than with the acute infectious diseases; and the authors have succeeded in their endeavor to present the work in a clear and forcible style, the book abounding with illustrations from the abundance of their material.

Beginning with an instructive history of vaccination and its fruits, the technique, course, complications and injuries of vaccination are carefully described, with the nature and character of vaccinal lymph, and the relation of vaccinia to smallpox. Then follows an exhaustive study of the acute infectious diseases, smallpox, chickenpox, scarlet fever, measles, rubella, and diphtheria, with a short chapter on typhus fever, which latter disease is apt to occur along the seaport towns. With all the diseases thorough attention is given to diagnosis and symptoms to enable the practitioner to arrive at the correct conclusion; but the course of treatment is also carefully outlined, and especially in the treatment of diphtheria the mechanical and serum treatments are prominently brought forward.

It would seem that the authors have spared no trouble to place before the profession a work complete in details, embracing every practical suggestion for the hygiene and care of these acute infectious diseases.—A. P. B.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By Prof. Dr. Carl von Noorden. Translated by Boardman Reed, M. D. Part VI. Drink Restriction (Thirst Cures), Particularly in Obesity. Cloth, 8 vo., 90 pages, 75 cents. E. B. Treat & Co., New York. 1905.

The historical side of restricted fluids in diseases of the blood vessels, the stomach, the heart, the kidneys, diabetes insipidus and obesity, is first considered by the author from the time of Hippocrates to the present. Oertel and Schweningen both advocate a restricted consumption of fluids to reduce fat, and have perhaps done more to make this method popular in Germany than any one else. As Van Noorden points out, however, both these authors collected their material from Bavaria, where from time immemorial more fluid has been taken with meals than almost anywhere else in the world. These patients not being accustomed to eat without drinking, voluntarily cut down their consumption of solids and so gave good results for the cure.

The studies on six cases are given in some detail, including both obese and non-obese patients. As a result of these experiments the author reaches some valuable conclusions. He finds that the water restriction neither increases nor accelerates the combusive processes going on in the organism, as has been claimed, nor does it cause the destruction of fat. The body weight is decreased as a result of the dehydration of the blood and tissues, and the total labor performed by the heart is decreased.

The book has the same neat appearance as the preceding volumes of this pleasing and instructive series. A bibliography closes the book.

SAUNDERS' POCKET MEDICAL FORMULARY. By William M. Powell, M. D., containing 1,831 formulas from the best known authorities. With an Appendix containing Posological Table, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetrical Table, Diet-list, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. Seventh Edition Revised. In flexible morocco, with side index, wallet, and flap. \$1.75 net. Philadelphia and London, W. B. Saunders & Co. 1905.

This little formulary has run through six editions in a few years, and must therefore fill a void in the work of many physicians. It is neatly gotten up and not too large for the pocket, where it will be always on hand. Numerous blank pages are inserted to enable the user to add favorite prescriptions as he may desire.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Etiology and Diagnosis of Cholelithiasis.—Owing to its anatomical position, the gall bladder is especially susceptible to pathological changes. Cholecystitis must be considered in the etiology of gall stones, for they are interdependent.

Gall stones occur most frequently between the ages of 40 and 60, and in women in the proportion of 4 to 1. It is hard to account for its prevalence at the period in life, except on account of the general diminishing powers of the body causing a lessened contractility to the gall bladder; then, too, infection has a better chance in old age, but even here it is necessary to have the obstruction, or otherwise the infection would be carried away. Infection occurs in two ways. (1) through the portal circulation, (2) through the common duct. The micro-organisms most commonly found are bacteria coli communis, typhosus, staphylococcus, pyogenes aureus, and bacillus subtilis. During typhoid fever the character of the bile changes distinctly; there is an increased amount, it is watery and dirty brown in color. Such cholecystitis would tend to form a rich source of cholestrin. Two per cent. of the operable cases give a history of previous typhoid fever. The frequent presence of the colon bacillus shows also how frequent is the infection through the common duct.

Diagnosis is often very easy. Some never have any symptoms—usually a biliary colic, a pain in the right hypochondrium spreading over the whole abdomen, marked rigidity of the abdominal muscles. Vomiting is often persistent and distressing; often fever is present, but this depends upon the amount of cystic and hepatic infection. Jaundice usually appears in from twelve to twenty-four hours. Liver is usually enlarged and tender, and the spleen is swollen. As soon as the stone passes marked relief occurs. At times there is present severe purulent cholecystitis. The results here depend upon the kind of infection. If the stone becomes impacted in the cystic duct, there is a dropsy of the gall bladder (often taken for a floating kidney), acute cholecystitis, either catarrhal, suppurative or phlegmonous, with or without perforation and subsequent peritonitis.

In gastralgia the pain begins in the epigastrium near the median line, rarely if ever accompanied by chill or fever, but the patient has a neurotic history. In nervous women there is a pseudo-biliary colic precipitated by fatigue or anxiety. Often the liver is tender and enlarged, but the gall bladder is not swollen. There is no jaundice or fever, or stones in the stools.—(WILLIAM RUOFF, *New York Medical Journal*, June 17, 1905.)

Effect of Tobacco Upon the Throat.—Bosworth in his work believes that the absorption of nicotine is the vicious factor in the effect of tobacco on the throat. Langmaid believes that while much of the hyperaemia of the pharyngeal mucous membrane may be due to the smoke of burning tobacco, its poisonous effects upon the nervous system are responsible for the vaso-motor disturbances found in the throat. The smoker is never free from nasopharyngitis, and sooner or later a mild form of tracheitis appears. This shows itself by frequent hemming, or by the morning cough, often so severe as to cause vomiting. When this becomes acute, as in winter time, there is a night cough, convulsive in nature, similar to the adenoid cough of the child. Relief is obtained at once by withdrawal of smoking.—(S. W. LANGMAID, *Boston Medical and Surgical Journal*, June 15, 1905.)

Diet in Nephritis.—In acute nephritis the matter of diet is a simple one. The disease is probably due to an acute disease, probably infectious. Hence self limited, or ending in death from failure to perform its function. Here proteids must be reduced as much as possible, and all meats excluded. Carbohydrates may be added to a milk diet. Fluids should be limited, especially if there is oedema.

In chronic nephritis all strain on the digestive apparatus must be avoided, especially from the condiments, pepper, mustard and salt. Rich animal broths are likewise to be prohibited. Von Noorden has shown that red meats do not differ essentially from the white meats, but all meat should be restricted. Fats are especially nutritive and all the fresh butter and cream that the digestion will warrant should be taken.—(HENRY JACKSON, *Boston Medical and Surgical Journal*, April 6, 1905.)

NEUROLOGY.

Under the Charge of

GUY L. CONNOR.

The Cerebrospinal Fluid.—1. In cases of tuberculous and purulent meningitis, a fibrin net is seldom absent after the cerebrospinal fluid is allowed to stand six to twelve hours in the ice-box. In cases of tumor or abscess of the brain, sinus thrombosis, hydrocephalus, meningeal irritation, etc., it never forms. Wentworth even goes so far as to state that the slightest cloudiness of the fluid with the formation of a fibrin net is pathognomonic of an inflammatory exudation in the meninges and is never absent in cases of meningitis.

2. According to Comba, there constantly exists a glucose-like reducing substance (average quantity—4 to 5 centigrams in 100 Cc) in the cerebrospinal fluid drawn during life from a healthy person. In tuberculous meningitis the glucose is found in small amounts at the onset but is absent toward the end. In purulent meningitis the glucose is always absent.

3. As a general rule, it is true that a mononuclear leucocytosis goes with a tuberculous meningitis and a polynuclear leucocytosis with a purulent meningitis.

4. Cryoscopy has been found to be of no value.

5. The bacterial findings of the cerebrospinal fluid are of paramount importance giving us, when positive, an absolute diagnosis of the etiology of the disease. When negative, we can draw no conclusions.

6. The agglutination test, according to Donath, is not reliable.

7. The prognosis of tuberculous meningitis until a few years ago, was regarded as absolutely fatal. There are, however, four cases on record which have recovered.—(E. P. BERNSTEIN, *The Medical News*, June 17, 1905.)

Bromids in Epilepsy.—The writer states his object in bringing this subject before the profession is to rouse a general antipathy to the indiscriminate use of this drug in epilepsy. He believes that as a rule this drug is worse than the disease. The sum total of comfort, happiness and well-being of the epileptic would have been greater if the bromids had never been discovered. When the drug is to be employed, it should be used in small doses, combined with some of the harmless remedial agents, like antipyrin, tincture of simulo, and horse nettle, or prescribe instead of the bromin salts, some prepara-

tion of brominized oil, which is less powerful and less noxious.—(FREDERICK PETERSON, *American Medicine*, June 24, 1905.)

Meningitis.—The somewhat similar clinical symptoms of meningeal irritation in infectious diseases may be due to two fundamentally different pathological conditions, to be differentiated during life by careful study of the spinal fluid, viz., meningismus (an irritation probably due to bacterial toxins, elaborated in some organ or tissue of the body other than the meninges as in typhoid fever and pneumonia, both of which however may produce during their course a true meningeal infection) and meningitis with the infectious agent localized in the meninges.

The fluid from meningitis cases fall into two types the serous fluid (from a serous meningitis of which tuberculous meningitis is the type) and the purulent fluid (from purulent meningitis, caused by the meningococcus, streptococcus, pneumococcus and other organisms.—(HASTINGS, *The Medical News*, June 17, 1905.)

Surgical Aids in the Treatment of Paralyzed Muscles and Their Deformities.—The author asserts the treatment of paralyzed muscles and their deformities all depends upon the stage in which the case is observed. When mechanical means have failed to restore to usefulness, such surgical procedures as tendon transplantation or arthrodesis should be employed. The following precautions, however, should be observed in tendon transplantation: 1. Careful selection of cases. 2. Before muscle grafting is performed the electric reactions should be taken to determine the strength of the muscles to be transplanted. 3. The reinforcing tendon should be as nearly parallel as possible to the one to be reinforced and it should belong to the same muscle group, although this latter precaution is not absolutely necessary. 4. Overextension at the time of suture should be avoided, as subsequently the muscle will lose its contractile power. 5. The tension of the reinforcing muscle should be estimated by pulling upon it until it shows signs of complete resistance. 6. Silk sutures should be used and the muscles quilted together firmly. 7. Strict asepsis should be observed during the operation.—(S. D. HOPKINS, *American Medicine*, July 1, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

Surgical Aspects of Gallstone Disease.—J. Wiener, Jr., says that the ideal method of handling doubtful cases of gall-gladder disease is to treat them medically during a few attacks. If one or more small stones are passed, followed by relief of the pain, then an operation is not indicated, because nature may effect a cure, but if one or more severe attacks of colic are not accompanied by the passage of any stones per anum, then an operation is indicated, and indicated long before there has ever been any jaundice. In discussing the symptomatology of the disease and the methods of making an early diagnosis, especial emphasis is laid on the fact that jaundice is a very inconstant symptom, as it is absent in 80 per cent. of gallstone attacks and is but rarely due to an obstructing stone in the duct. To carry out a rational plan of treatment it is necessary to determine the location of the stones and the degree of inflammation present, and careful individualization is necessary. The analogy to appendicitis is very striking, and just as the mortality of that disease has been greatly reduced by an appreciation of the necessity for early operation, the same reasoning must be applied to gallstone disease. Early operation saves the patient much pain and the dangers of suppuration, cancer, and peritonitis. A cholecystectomy done early is not much more dangerous than an interval appendectomy, whereas stone in the common duct is dangerous not only on account of the difficulty of removing it, but also of the resulting cholangitis with its sequelæ. The whole trend of modern progressive surgery is towards the removal not only of the gallstones, but also of the diseased organ in which they develop, the gall-bladder. Primary cholecystectomy is to-day the operation of choice in the large majority of cases of gallstones. The reasons for this are manifold: (1) The mortality is very small, lower even than after cholecystotomy. (2) The wound heals much more rapidly. (3) There is no danger of recurrence, either of the cholecystitis, or of the formation of new stones. (4) No secondary operations are necessary.—(*Medical Record*, July 8, 1905.)

Apparently Unavoidable Errors in Diagnosis of Psoas Abscess.—H. Augustus Wilson (Philadelphia) cites enough instances to show that the diagnosis of psoas abscess is not always easy,

and that each case is worthy of the most careful study in every phase presented. The presence of well-marked evidence of spinal caries is sometimes misleading. Great spinal deformity is often present long after the activity of the bone disease has subsided. When conditions more or less closely resembling psoas abscess are also present, the preponderance of evidence is often in favor of psoas abscess when in reality some other disease or condition is present. The knowledge that these errors in diagnosis have occurred under the most critical inspection and elaborate study is convincing that while they are not always avoidable, they should be guarded against as far as possible.—(*American Medicine*, July 8, 1905.)

Ethyl Chlorid Anesthesia in Otologic Surgery.—E. H. SCHILD, Baltimore (*Journal of the American Medical Association*, July 8), advocates the freezing of the parts with ethyl chlorid in operations on the membrana tympani and external auditory canal. Practical experience, he says, has demonstrated that the danger and inconvenience that might be feared do not exist, and that the subsequent course of cases in which this method of treatment is employed is not different from that in cases in which ethyl chlorid has not been used. He uses for the ethylchlorid anesthesia a specially constructed nozzle, very slender, about two inches long and attached to the metal container at an angle so as not to interfere with the view of the parts. By this a very fine spray, not a jet, is easily directed to the desired spot, beginning with one that is almost imperceptible and gradually increasing its volume and hastening the evaporation by means of a jet of air blown into the canal from a Politzer bag. He usually shuts it off as soon as any aching pain is felt by the patient, and then blows in a little more air and proceeds at once to operate. He has recently begun using this method as preliminary to the application of Lucae's sound in the treatment of chronic otitis media, and finds it an ideal way to avoid pain, and states that it is apparently followed by a better percentage of improved cases. This, however, needs, he says, a fuller confirmation by experience, which he hopes to report at an early date.

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

Pernicious Vomiting of Pregnancy.—A valuable article on this subject is contributed by Williams to the newly inaugurated journal—*Surgery, Gynecology and Obstetrics*.

Williams' attention was particularly directed to this question, when he lost a patient four days after the induction of labor, the operation having promised a satisfactory outcome. The symptoms suggested an acute toxæmia, and the autopsy revealed the characteristic lesions of acute yellow atrophy of the liver. Within a year, the author induced abortion, for the same cause, in five other cases. Two of these died, one at the third month and the other at the seventh, both with jaundice and diminution in the size of the liver, as in acute yellow atrophy. These cases are made the basis of the contribution.

Excluding all cases in which the vomiting results from lesions outside the generative tract, and hence independent of the pregnancy, there is available evidence to justify the division of the etiologic causes into the following groups: (1) Reflex, (2) Neurotic, (3) Toxaemic.

(1) *Reflex*. The vomiting is due to the presence of abnormalities, such as displacement of the uterus, ovarian tumors, endometritis or abnormalities of the ovum, as hydatidiform mole, hydramnios, and sometimes twin pregnancy. These are discussed in full.

(2) *Neurotic*. Since Kaltenbach's paper (1890), many writers have held that a neurosis is the principal cause. This view is too extreme and should be held only after excluding organic lesions and demonstrating the absence of toxæmia by a most thorough examination of the urine.

(3) *Toxic*. First suggested by Fischel (1884), this conception has taken a more and more prominent position. The toxin has been referred to the corpus luteum, ovary, intestine, liver and placenta, and an attempt made to identify the condition with eclampsia and acute yellow atrophy. Both Stone and Ewing have attributed it to the disturbance of the hepatic function, and Williams believes that at least a portion of the toxic cases will show lesions identical with those of acute yellow atrophy. Arguments are set forth in support of this view.

Although we are ignorant of the exact nature of the toxic substances, it is natural to suppose that they are metabolic in origin and directly connected with the pregnancy. Whether derived from the mother, fetus or from both cannot be decided.

The excretion of ammonia is then considered, the writer holding that a marked increase in the ammonia output, in women suf-

fering from pernicious vomiting, indicates the existence of a serious toxæmia, which, if allowed to continue, will be accompanied by lesions of the liver and other organs, inconsistent with life. Accordingly, abortion should be induced as soon as the condition is detected. On the other hand, in the reflex and neurotic forms, the ammonia excretion is normal, so that the determination of this affords not only a means of differential diagnosis, but also a valuable guide as to the treatment.

Williams believes that there are at least two toxæmias of pregnancy (perhaps more), one giving rise to the vomiting of pregnancy and the lesions of acute yellow atrophy, and the other to eclampsia. This conviction is founded on the careful study of the pathological anatomy, clinical observation and the study of the metabolism. In both, necrotic changes occur in the liver and kidneys, but are totally different in character. These are described.

Chemical examination of the urine shows an equally marked contrast between the two conditions. In eclampsia, the total amount of nitrogen is greatly diminished, while the ammonia coefficient remains practically normal. In vomiting, on the contrary, in spite of the scanty amount of urine, the amount of total nitrogen remains approximately normal, while the ammonia coefficient is wonderfully elevated. Generally speaking, it may be said that a high ammonia output is a favorable prognostic sign in eclampsia and a very ominous one in vomiting.—(*Surgery, Gynecology and Obstetrics*, July, 1905.)

Typhoid During Pregnancy.—Hicks and French, of London, discuss three questions, as follows:

A. Are typhoid bacilli transmitted from mother to fetus? In ten cases, where the abortion occurred late in the disease, the bacilli were found in the blood or organs of the fetus. In eleven cases of abortion at an earlier period of the fever, the organisms were not found. This brings up the question as to whether, with a viable fetus and an early diagnosis, labor should not be induced as early as possible in order to save the child from infection.

B. What is the effect on the disease? The pregnancy does not alter the prognosis or change the course of the fever.

C. What is the effect on the pregnancy? The prognosis as to the termination of the pregnancy is bad. Abortion or premature labor takes place in the majority of cases. Delivery is usually easy and involution is natural. The fetus, if viable, is often born dead or dies soon after delivery.—(*Lancet*, June 3, 1905.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the charge of

A. P. BIDDLE.

Dermatitis Seborrhoica and Its Relations to Alopecia and Other Conditions.—L. D. Bulkley reviews his experience with dermatitis seborrhoica in private and clinical practice and concludes that it is an eruption that should be recognized, since it forms about one-tenth of the cases which come to a dermatologist. Both sexes are affected in about equal proportions, and though observed at all ages from one year to eighty-nine years, it is mainly a disease of middle life, almost fifty-three per cent. of the cases occurring between the ages of twenty and forty. Combining the statistics of alopecia and dermatitis seborrhoica, it appears that in 557 out of 880 cases, or sixty-three per cent., the loss of hair was due to the latter condition. Although the exact nature of the causative agent is undetermined, enough has been learned to establish pretty clearly that dermatitis seborrhoica in all its forms is more or less contagious, and that very much of modern baldness is caused thereby, and therefore is of parasitic origin. Its development is, however, undoubtedly favored by the various elements which lower the vitality and render the skin more susceptible to operation of such local agencies. The differential diagnosis from psoriasis, ringworm, pityriasis rosea, syphilis and eczema is discussed, and the author describes his method of treatment which consists mainly in the application of various combinations of resorcin, sulphur, salicylic acid, carbolic acid, formalin, etc. In this connection, he says that proper local treatment is all essential, but for the best results a certain amount of reconstructive treatment is necessary, that the skin may not furnish such a suitable ground for the growth of the microorganisms found in it, and believed to be of etiological moment.—(*Medical Record*, May 13, 1905.)

The Present Status of Kontgen Ray in Therapy in Dermatology.—J. H. Comroe (Philadelphia) concludes (1) radiotherapy must not be considered a panacea. Although it has a large field of usefulness, it also has its limitations and dangers. (2) Most consistently good results are obtained in epithelioma, rodent

ulcer and acne. (3) Great benefit may be looked for in eczema, chiefly the vesicular variety affecting the hands, sycosis, tinea tonsurans, verruca, lichen planus, naevi and port-wine marks, localized pruritis, favus, etc. (4) Deepseated epitheliomas with the exposure of bone, cartilage, etc., appear to do well for a while, but usually get worse eventually. The judicious combination of radiotherapy and operation is highly recommended in these cases. (5) The Roentgen rays are beneficial when pain particularly is to be avoided, as in old, feeble people. (6) Radiotherapy produces the best cosmetic results. (7) Recurrences after radiotherapy are less frequent than after other methods, and are more amenable to re-application of the rays. (8) The high-vacuum tube is preferable in epithelioma, rodent ulcer and lupus; the medium and soft tube being employed in other cases. (9) Radiotherapeutic treatment should be instituted as soon as possible, the result usually being in direct proportion to this factor. (10) Epithelioma of the skin usually reacts better than that involving the mucous membranes. (11) Tampering with caustics and other irrational forms of treatment are to be condemned as measures preceding radiotherapy since they undoubtedly unfavorably alter the prognosis in such cases. (12) No rule can be laid down for the prevention of burns, etc.; hence the dosage must be carefully regulated in each individual case. (13) No protective powders, ointments, etc., must remain on the parts treated, since they may prohibit or lessen the effect of the rays by interfering with their passage.—(*American Medicine*, June 17, 1905.)

A Case of Menstrual Urticaria.—D. J. M. Miller epitomizes the literature of this condition and describes its occurrence in a girl of fifteen, who menstruates regularly and whose attacks of urticaria make their appearance seven or eight days before and cease two to three days before, each period. Occasionally the urticaria persists until the flow begins, rarely during the first day or two of its course. During the intervals between the periods the patient is quite free from attacks and she is perfectly healthy in other respects. The urticaria itself is of the ordinary type.—(*Medical Record*, May 13, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

Treatment of Neurotic Heart.—Proper, sufficient alvine evacuations are most essential to permanent well being. To attain this at times is almost impossible, and we are obliged frequently to modify habits and recur to fresh prescriptions. Some preparation of aloes (preferably aloin) and the sulphate of soda in hot water at bed time have been found very useful by me. The diet of course should be regulated, and sugars and starches reduced to a minimum. Whenever there is a suspicion of rheumatic or gouty condition, so called, the most valuable remedy is salicin. Massage treatment made use of daily is often largely instrumental in helping such patients toward a cure. The different preparations of ammonia, notably the aromatic spirits, and the valerianate, are quieting and useful whenever the nervous symptoms are especially annoying and threatening. If the concomitant organic cardiac changes are marked, small doses of digitalis and nitroglycerin, combined and frequently repeated, work wonders occasionally. Whenever we have to do with true angina pectoris as subsequent events prove to be the case, no medicine or treatment will cure, or even appreciably relieve. At times strychnine in moderate doses and combined with pepsin and bismuth, has appeared to be useful. The use of iron for the condition of secondary anæmia, has seemed almost inert, and the blood condition, whatever the precise cause of its impairment in lowered haemoglobin, specific gravity, and color index, and moderate increase of leucocytes has not improved. The evidences of slight cardiac enlargement, with or without apparent dilatation of the cavities, has remained about, if not wholly, the same during months and years of observation. I believe in some instances we obtain permanent good effects from the prolonged use of the glycerophosphates of lime and soda, combined or not with tola and calicaya. No drug has the same value at times in the control of the neurotic heart as coca. The great difficulty is to obtain an official preparation which has any real value. I should not advise the too long or frequent use of coca in this condition. It is more particularly as a temporary help that it should be used. In some instances frequently repeated doses of tincture of strophanthus are temporarily

even more rapidly and evidently beneficial than coca. Finally, I would add that judicious use of a few antiseptic drugs, notably wood charcoal (Bellocque's), salts of bismuth, creosote, and the mineral acids, is extremely valuable whenever faulty metabolism from the stomach or intestines is clearly made out. The following prescription borrowed from Gibson is doubtless very useful at times for the flatulence of organic or functional angina:

℞ Sp. ammonii aromat, m xv.
 Sp. aetheris comp.
 Sp. chloroform, āā m. x.
 Sod. bicarb., gr. x.
 Ag. menth. pip., ʒj.

—(BEVERLY ROBINSON, *The American Journal of Medical Sciences*, June, 1905.)

Chronic Poisoning by Acetanilid.—That chronic poisoning characterized by degenerative changes in the blood, and by physical disability, may result from the continued ingestion of anilin derivatives is well known, as it is also well recognized that acetanilid, one of these products, because of its small cost and its toxicity in excess of others of this group in common uses, renders it particularly liable to be the offending agent. Acetanilid is the chief ingredient in headache powders so generally dispensed by pharmacists without prescription, as it is in certain nostrums both in use by the rank and file of the profession, and, unfortunately, thus introduced by them to the laity.

I have under observation a man, aged 40, of splendid physical development, who recently consulted me concerning his digestion. There were loss of cardiac tone, a sallow, peculiar dusky hue of the skin, and anorexia. Inquiry elicited the fact that for two or three years his habit had been to take headache powders. The blood as it stood on the ear, showed the characteristic chocolate hue indicating the presence of methemoglobin. Inspection showed moderate variation in size and shape of erythrocytes. These were 3,860,000 per cubic centimeters; the leucocytes, 9,200. There was, therefore, a pathologic leucocytosis, and a diminution in the erythrocytes, the cause of which, an acetanilid toxæmia, was not hard to seek, other factors being excluded by careful inquiry.—(STEWART, *Journal A. M. A.*, June 3rd, 1905.)

BACTERIOLOGY AND PATHOLOGY.

Under the Charge of

H. S. OLNEY.

Spirochaetae of Syphilis.—Anything which tends to clear up the question of the etiology of syphilis is, of course, of great importance and value. The successful inoculation of monkeys with syphilis was a big step forward, but the recent work of Schaudinn and Hofman bids fair to place this disease among those of known etiology. In their communication in the *Deutsche Medizinische Wochensft*, they claim to have found the specific germ, which they call the *spirochaeta pallida*, in eight cases of syphilis. They made smears from the inguinal glands or from the gland juice obtained by puncture, and, after fixing in absolute alcohol, they stained in Giemsa stain, which is a mixture of Giemsa's eosin solution and of azure. This method takes from sixteen to twenty-four hours, but another method, used by Metchnikoff and known as Marino's modification of Giemsa stain, takes only about fifteen minutes. This is a mixture of a methyl alcohol solution of azure blue with a weak aqueous solution of eosin.

Schaudinn and Hofman found two varieties of *spirochaetae* in syphilitic lesions—one with close coils, almost transparent, very motile, and with both ends tapering to points. This is known as the *spirochaeta pallida*. The other is larger, takes the stain better, and the coils are looser. This variety is found only in the more superficial lesions, while the *pallida* is found in both superficial and deep portions of the primary and secondary lesions.

Neither form has been cultivated artificially as yet.

Since this first communication, confirmatory work has been done by Metchnikoff, who reported finding *spirochaeta pallida* in eight cases out of twelve examined—four cases being in monkeys which had been successfully inoculated with syphilis, and four cases in young men with acquired syphilis.

Buschke also found the *spirochaeta pallida* in large numbers in the spleen and liver of a four-months-old baby with inherited syphilis.

C. Fraenkel and Lehmann and several others have also found this *spirochaeta* in lesions of hereditary and acquired syphilis, and nowhere else. So one is justified in being rather optimistic as to the validity of the claims of the discoverers. Thanks to the success of the experi-

ments on the inoculation of monkeys with syphilis, a susceptible animal has been secured, and the four rules of Koch may eventually be complied with.

Tuberculosis of Mesenteric Glands.—Rosenberger's conclusions are based on the findings in 49 cases where tuberculosis existed in some part of the body. In 25 of these cases bacilli were found in spreads made from the glands, and yet 36 per cent. of these glands showed no gross evidence of tuberculosis. In 24 cases the bacilli could not be demonstrated, and 87½ per cent. of these cases showed no gross evidence of tuberculosis in the glands, yet over 93 per cent. produced tuberculosis in guinea pigs when inoculated. His conclusions are as follows:

1. In all cases of active tuberculosis, and in almost all cases of inactive tuberculosis, the mesenteric glands are tuberculously infective.

2. The mesenteric glands in these cases may or may not show gross evidence of tuberculosis or of tubercle bacilli in spreads; the result is the same as far as the qualitative production of tuberculosis is concerned.

3. The mesenteric glands in a certain percentage of cases showing no tuberculous lesions in any part of the body are tuberculously infective. In his cases the percentage was 40.

4. The tuberculous infectivity of the mesenteric glands is probably shared by the other groups of lymph nodes throughout the body.—(*American Journal of Medical Sciences*, July, 1905.)

Cytotoxins.—Woltmann's conclusions:

1. The cytotoxins are not specific.

2. The changes occurring after the injection of different cytotoxins are similar and do not vary in kind.

3. The changes do, however, vary in degree.

4. Nephrotoxin causes the most specific change.

5. The hemolymph glands play some important part in the production of eosinophiles. The hemolytic action of hemolymphotoxigenic serum is greater than that of other cytotoxic sera.

6. The histological changes which are observed in every case are secondary to the hemolytic factor present in all cytotoxic sera.—(*Journal of Experimental Medicine*, April 25, 1905.)

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VENEREAL PROPHYLAXIS.*

ALBERT E. CARRIER,
Detroit.

Tuberculosis is called the scourge of the human race, and with the measures that are being taken to prevent the spread of this disease the medical profession is in hearty accord. The efforts that have been made to instruct the people how to avoid contracting consumption have brought forth good fruit; it with syphilis and carcinoma makes the trio of diseases that decimate the race. Carcinoma has been the subject of study for years with the hope of finding its cause, and of furnishing means for its extinction. The laity is almost as familiar with the results of these efforts as are the investigators, so for two of the trio of decimators the public has full information, and any legislation looking toward prophylaxis of these two diseases has cordial support from all classes. Health boards with the help of the medical profession are efficiently at work in stamping out smallpox, measles, scarlet fever, diph-

theria, etc., and the people have become familiar with the danger that exists of contracting these diseases without coming in direct contact with the individual sufferer, and restrictive measures are submitted to without a word of complaint. As a result centers of infection have been safeguarded in order to prevent exposure and the red card denoting scarlet fever, the blue diphtheria, the yellow smallpox have become familiar to the public as danger signals, warning of infection wherever displayed, and as a result the localities are avoided. Education has been the means by which the public has come to know the dangers, and how to avoid them. To our profession belongs the honor of initiating and carrying to fruition this work so essential to the welfare of the people.

As I have already stated, there are three diseases, consumption, syphilis, carcinoma that are the scourges of the human race; of these three the one most far reaching in its baneful influence upon the masses, the only one which is directly transmitted to offspring, the only one that is acute for years in the individual and during all this

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time capable of inheritance, is not safeguarded by health board restrictions and practically nothing has been done in the way of educating the masses as to the danger of the disease, and the fact that it can be contracted innocently. Five per cent. of all cases of syphilis are innocently contracted. Add to syphilis that other human race scourge, gonorrhoea, and to the two the chancroid, and we are prepared to ask the question if, while doing so much for the prevention of disease, we have not been guilty of at least an oversight when we have left venereal diseases unrestricted.

I think that you will realize this more vividly when I say that in our own state there are at this time over twenty-five thousand centers of infection due to contagion against which the public has no protection, all of which are venereal diseases. No measures have been instituted whereby the masses might be instructed in ways to avoid the contagion of these affections nor are they informed that they can be contracted innocently; more than this, these centers of infection are ambulatory, traveling from place to place. The sufferer from smallpox is a dangerous element to the health of a community for say at the outside six weeks, the scarlet fever patient for about the same period of time, the diphtheritic, the typhoid, the pneumonic patient for a few weeks only, while the limits of their infection areas are measured by the four walls of dwellings or hospitals. Venereal diseases are not isolated by law, they are not reported to health boards, affected persons are not required to make a statement of their condition when securing a marriage license, the diseases are not placarded, and as the sufferer is ordinarily able to attend to his or her vocation, and as no visible evidence

of the disease is manifest, he attends social functions, is freely admitted to our homes, eats at our tables, sleeps in our beds, uses our toilet articles, kisses our children; neither by nature, nor by law is he exampled as a danger to the health of those with whom he may come in contact. The limitation as to time in the individual sufferer that danger of contagion exists is not marked by days, or weeks but by years, and during the whole of this period the capacity exists of communicating the disease to others.

Disease is always expensive to the community, as well as to the sufferer. It has been determined approximately that the expense attending venereal diseases, with the loss in earning capacity of the sufferers is about twelve times that resulting from typhoid fever.

Eighty per cent. of all deaths from pelvic disease in women is the result of gonorrhœal infection.

Thirty per cent. of all blindness is due to gonorrhœal infection of the new born. Fifty per cent. of all childless marriages is due to gonorrhœal infection. These statistics do not come from health boards, but they are well within the limit of truth.

I wish I had power of language sufficient to impress every one within reach of my voice with the necessity of our becoming missionaries consecrated to the preaching of the gospel of purity and morality, both in and out of season to the masses, if it should be with only this object in view, to overcome the baneful influence that has been exerted by the lay press by allowing the quack advertisements of the easy and short methods of cure they profess to employ, whereby the laity has become familiar with the idea that venereal diseases are of little moment and easily cured.

ARE LEGAL RESTRICTIONS OF VALUE?

In considering this question there are certain facts to be remembered:

First, prostitution is the source of infection in the vast majority of cases, and to stamp out venereal diseases prostitution must be stamped out.

Second, prostitution has existed ever, and will exist as long as men and women are endowed with animal passions demanding satisfaction in the sexual act.

Third, prostitution is a vice, not a crime (according to the present interpretation), and so within certain limits cannot be made a punishable offence.

Fourth, the regulation of prostitution by legal methods is repugnant to the ultra-moral element of the community.

Fifth, the failure of all previous attempts in the way of legal enactments having for their object the segregation of prostitutes, or the licensing of each individual prostitute.

In spite of these facts I am positive that legal restrictions are of immense value in preventing the spread of these diseases. I do not for a moment think that such measures will stamp out the evil.

The subject of legal restriction in connection with venereal diseases seems to carry with it the idea that it means putting the stamp of legality upon prostitution resulting in the united opposition of the religious element of the community, which forms a coalition with the lowest elements of society, the two forming an offensive, and defensive league to prevent the successful issue of such legislation. It is a strange combination, vice and virtue united in efforts to prevent virtue from overcoming vice.

I am not purposing the legalizing of prostitution, for much as I may think it advisable, the time has not come for such

action, but for a moment let me call your attention to some of the benefits that have accrued under such legal supervision where prostitutes have been under inspection.

The effort made in St. Louis was a failure, and no inference of value can be drawn from the results while the licensing law was in force, the bitter opposition of the ultra-moralists prevented its provisions being carried out in a manner at all satisfactory.

One thing to be remembered when considering legal restrictions applied to prostitutes is, that there are two objects to be obtained, one looking to the control of the vice itself, while the other has to do with the safeguarding of the community, in preventing the spread of contagious diseases that are dangerous to health and life of individual sufferers, so while we might oppose legislation affecting the individual prostitute on moral grounds we surely cannot have any reason for opposing the enactments of laws conserving the individual's health and life.

But I am digressing, I want to call your attention to a few familiar facts regarding results obtained by licensing laws.

Army statistics are not valuable in drawing conclusions regarding the masses for the reason that the male offender in private life is not compelled to pass physical examination while the soldier is, but the following facts I think will at least cause some thinking.

In Kober's article is given the following table taken from Munson's Military Hygiene:

ADMINISTRATION RATE PER THOUSAND STRENGTH OF VENEREAL SUFFERERS.	
Germany	27.9
Russia	36.0

Japan	36.0
France	40.9
Holland	48.1
Austria	61.0
United States	37.7
Great Britain	173.8

What a commentary on the nations that stand for the highest in civilization, and where no laws exist having for their object venereal prophylaxis.

Ravogli, giving statistics from the Cincinnati Hospital for a series of years both with and without sanitary control, shows that when cases were found and reported by inspectors that the number of patients increased markedly (those suffering from venereal diseases).

The following table gives the number of prostitutes treated the several years without inspection:

1890	117
1891	164
1892	131
1893	142

Sanitary inspection ordered in 1894 resulting in admissions as follows:

1894	224
1895	220
1897	194

Sanitary inspection was discontinued in 1898-9. Admitted in

1898	144
1899	149

In 1900 the law was again in force and we find

1900	248
1901	529
1902	324

These figures show that with a sanitary law providing inspection and isolation of prostitutes, from one to two hundred more centers of infection were allowed to spread these diseases, when sanitary inspection was abolished. Under the in-

spection the prostitutes were compelled to seek treatment and remain in hospital until cured, or until danger of communicating the disease had disappeared.

Without burdening you with further evidence I think you will agree with me that restrictive laws regarding prostitution, and the spreading of venereal diseases are of value.

MARRIAGE LICENSE.

According to law a man may not marry his mother, grandmother, sister or cousin even though the parties may be in the best of health; now there was a season for the enactment of this law.

Experience shows that consanguineous marriages beget an offspring that is degenerate mentally and physically, and the people have come to realize the fact that degenerates are not desirable members of a community. Idiots and the insane are dangerous, and are put under restraint, requiring homes and asylums for their care, maintained at the public expense; they are a burden to the community requiring dollars for its satisfaction. The law purposes the cutting off of the supply of these dependents, preventing their marrying and propagating. A license is required, and is obtained under oath before a marriage can be consummated, and while the requirements are sanctioned by propriety, common sense and sentiment, they do not go far enough, physical conditions are not considered as factors, no applicant is questioned as to whether suffering from any contagious disease. A law was passed this year in Michigan which compels physicians to testify in court as to the presence of uncured syphilis or gonorrhœa in any person who may contract a marriage while uncured.

The dissemination of knowledge regarding consumption that has been so thoroughly given the people has resulted in a sentiment among the laity against the marriage of those suffering from tuberculosis, even without legal enactment to prevent the same. The influence of tubercular parents is in no sense so profound upon offspring, as is that of syphilis upon their children. The tubercular disease is not transmitted direct from parent to child while syphilis is, and the child born with syphilis is competent to cause the disease in others, while the effect of the virus upon the foetus of a syphilitic is death before maturity in four or five conceptions, before one living is born, and the one born alive has a heritage of disease which if not causing death in a few months leaves the sufferer in a condition that were better ended with death. Of all of the relations of life, that of the family is the most sacred, and should be the most thoroughly safeguarded. Childless marriages are the bane of society, 50 per cent. of involuntary childless marriages is caused by gonorrhœa in women, and of these 45 per cent. were infected by the husband. In connection with this take Morrow's statement "that many married women give birth to one child, the infection then becoming active in the prevention of further conceptions, showing an early gonorrhœa, contracted *soon* after marriage, while in the case of syphilis, one in five of all married women having this disease contracted it *soon* after marriage. More rigid requirements in securing marriage licenses would prevent to a certain extent these deplorable conditions. By our silence in this matter we are sanctioning these marriages."

Literature from boards of health is cir-

culated among the people, calling attention to the ways in which scarlet fever, smallpox, tuberculosis, measles, whooping cough, diphtheria, etc., etc., are contracted, and explicit directions are given to govern those who may innocently become exposed to these affections in order to prevent their contracting the diseases mentioned if possible, and the people are warned to be constantly on the outlook for evidences of an outbreak, the evidences having been minutely described in the literature. As if something more was needed to guard against these diseases we have conventions which are of a public nature under the auspices of the health boards, where the prevention of these diseases form the topics for discussion, and in this way the community becomes familiar with the avoidable causes and is prepared for any emergency.

Are venereal diseases ever mentioned in these conventions; is literature regarding the danger of innocently contracting these diseases ever circulated among the masses? How are we to avoid a danger unless we know that it exists? The railroads put up signs at the road crossings warning you of a danger at that point. The government puts buoys along our navigable streams, and light houses and fog whistles, and bells to tell the mariner of a danger to be avoided; new points of danger are being constantly discovered, and speedily marked. Physicians, sanitarians, and hygienists have been working on the lines of disease prevention, and are putting out signals constantly to warn the people of the danger, and wonders have been accomplished, thousands of lives have been saved as a result. Is it not strange that while doing this nothing has been done to mark the danger points that attend venereal diseases. They

are not mentioned in our preventive literature, they are not the subject of discussion in our health conventions, no word of caution is ever given as to the danger of contracting these diseases innocently. What shall be done?

From the tenor of my paper I think that you will infer that education must play an important part in prophylaxis of the diseases under consideration, but I presume that there will be differences of opinion among us as to the best methods of educating the masses. The greatest obstacle to a successful prophylaxis lies in the pessimism of the medical profession. The fact that so little has been done in the years that are passed in eliminating these scourges is used as the argument to prove that any effort at the present will only end in failure. Similar arguments were used when it was proposed to curtail the decimating power of the white scourge, and yet within the last twenty years the mortality from consumption has been reduced almost one-half and the public which has been educated up to the necessity of following the rules laid down by investigators not only, but willingly submits to legal restrictions. To bring about the same result in venereal diseases is possible, but we must expect that our first efforts will be followed by meager results, but nevertheless results that are for the betterment of the masses.

EDUCATION.

If we could, only for our purpose, regard these affections as non-venereal a great obstacle to success would be removed; it is the stigma that attaches to the diseases that prevents their being handled as are other contagious affections, but the stigma is present and our work must be accomplished in spite of it.

Education to combat venereal diseases must be along the same lines as that of consumption, by beginning with a knowledge of the organs affected, the purpose of the endowment of the individual with these organs, in other words their physiology. Even young children know the purpose of the eye, the ear, and the lung, and why should not the cloak of false modesty be removed from the sexual organs when it comes to imparting a knowledge of their function.

The supposition is that parents are anxious for the welfare of their offspring and willing to do anything to further that object. Education regarding venereal, or rather diseases that affect the sexual organs, and methods of avoiding the same should begin at the home, parents being the instructors of their children. With the knowledge of the function of the organs must come the insistence that continence is compatible with perfect health, for as the boy comes to regard the first cigar or cigarette that he smokes as positive proof to his associates that he is becoming a man, so has the impression been made that sexual intercourse becomes necessary as an evidence of manliness; eradicate this, or prevent its inception. I know the objections that will be offered to talking over these matters for fear of the effect of calling the child's attention to organs of sex, but if the parent does not, the knowledge will be obtained from other, and not so proper instructors. With a child's confidence parental instruction of this nature is perfectly proper, and it should be imperative.

In many cases, in fact for the present in most, this education will not be begun in the home.

Why are not the schools a proper place for this instruction in such cases; to the

children who have had the instruction at home, it will add an extra impression. I recognize the difficulty of getting proper teachers, and the necessity of the selection of different text books upon physiology. The school physiology and the text books used are a farce, but methods of teaching and books to teach from are a possibility. As the child grows older and attends seminaries and colleges, the instruction should be kept up, and as the pupils are then men and women, the instruction could be fuller, and more to the point. This matter of education in the schools I am aware is a delicate one, and requires to be considered thoroughly, and the beginning should be only rudimentary, but once started can be gradually developed up to the point where it will be of inestimable importance in overcoming venereal diseases, by prevention of exposure to contagion.

There are a large number of grown children, however, who have never had childhood instruction, and are in need of the same knowledge; our hospitals are filled with those requiring surgical aid for the sequelæ of the diseases under consideration, and our dispensaries attest the prevalence of them; how are we to reach these?

First—A literature in the form of tracts should be carefully circulated, not once, or twice, but continually. The preparation of such reading matter will require much thought in order to state the facts in a manner emphatic, and in language that will not be in the least offensive. Smallpox, consumption, and other contagious diseases have been the subject of a literature and the results have been most favorable, why would it not be valuable in venereal diseases?

Second—Talks to men and women who

are working in factories. I do not believe that employers, when shown the object to be accomplished would object to giving an opportunity at stated occasions for talks to employes, upon the dangers of the contraction of these diseases innocently, urging the precautions necessary in the use of common toilet articles, drinking cups, etc. A single talk will not be of much value, but repeated talks at stated intervals will result in ultimate good.

Third—Conventions are held by boards of health in different parts of the country at stated intervals, in which the general public take part,—have conventions for the purpose of studying the best means of controlling venereal diseases composed of the professions, business men, and the doctor as the advisor. Such meetings would familiarize the community with these diseases, and eventually work up a sentiment favorable to our efforts in the matter. By every means in our power we must endeavor to reach all classes of humanity in the matter of instruction.

An essential matter in the treatment of these affections is the necessity for hospital accommodation for those affected. We have no hospitals for this class of diseases, and they are not allowed in any of our general hospitals. We can appropriate money for contagious hospitals but according to the interpretation of health boards venereal diseases are not classed as contagious, and yet all hospitals bar them, and syphilis and gonorrhœa stalk our streets, spreading the contagion, whereas if they could be kept under inspection and treatment until cured, or until danger of infection was removed, you can readily see the benefit that would result in removing danger centers.

So far nothing has been said about

legal restrictions, these would most certainly follow if our methods of instruction were carried out fully. Get the public once to realize the danger as we realize it and there would be no difficulty in getting laws looking to the control of these diseases.

CONCLUSIONS.

Venereal diseases exist in every community to such an extent that an imperative demand is made for prophylaxis.

That while legal restrictions are of immense value their enforcement at the present time is impossible.

That the laws regarding the issuing of the marriage license should take account of venereal diseases.

That venereal diseases should be regarded in fact contagious, and reportable to health boards.

That hospital accommodation should be furnished for those suffering from venereal diseases.

That our efforts for the present should be along the line of education in the family, in the schools, and by literature, and lectures to the public.

That medical pessimism in this matter of prophylaxis must be eliminated.

DISCUSSION.

C. B. Burr, Flint: The paper of Dr. Carrier is thoughtful and timely. He has spoken truths which should be reiterated, preached and proclaimed. The prevalence and ravages of venereal disease are appalling. Dr. Carrier might have added to his statistics that more than fifty per cent. of nervous diseases have as a factor in causation, or have as their only cause, syphilis. A campaign must be instituted to enlighten the public upon this burning question. I am in sympathy with almost every word which Dr. Carrier has uttered. As to the possibility of teaching these matters in schools, I see difficulties in the way. They cannot be presented to mixed classes. It is

of course feasible to teach them in private schools for boys and for girls, but in this way you reach but a few. Something must be done, however. The flippant references among boys to the consequences of venereal contact we have all heard. At a certain period of life loose living is considered an accomplishment among some. We must pull together and in the interests of the perpetuation of the race do all we can to minimize this most fearful of all evils.

H. W. Longyear, Detroit: The essayist is to be congratulated not only on the literary excellence of his paper, but especially on the ground that he takes regarding the subject of education as a means of prevention of venereal disease. This idea has been one that I have advocated for a number of years—in fact I read a paper before this Society at its meeting in 1891, in which I took the same ground as the essayist, but I went a little farther and advocated the beginning of such education in our schools. My opinion is that education on this subject, to be of the greatest value, must—like the teachings of religion—be begun with the young, while the mind is impressionable. Ideas that become fixed in youth influence the conduct of life of the individual far more than when acquired in later life. This is a fundamental principle of all religious education. The method of teaching this subject should be placed in the hands of the State Board of Health. Literature could be issued advising proper subjects and manner of teaching, and this placed in the hands of duly appointed physicians, who should instruct such of the scholars in the schools—perhaps after a certain age—as should be designated by the Board of Health. The whole matter should be under the control of the Board of Health.

Restriction by inspection of houses of prostitution is, in my opinion, of little practical value. The ground covered is so small and the feeling of security engendered by it so frequently found to be misplaced. The most of the cases of venereal disease that I have had to treat have been obtained without pay, so that examination of public prostitutes would not have saved them. Fear of the results of illicit intercourse, engendered by a knowledge of the true status of the question, will save more innocent from suffering and prevent more pelvic surgery than any amount of inspection could possibly accomplish.

H. R. Varney, Detroit: The subject matter which has been presented by Dr. Carrier is in

my opinion one of the most important subjects upon our program and should be presented before the general meeting of the Society, as it has such an immense bearing upon the well-being of so large a per cent. of people in general.

We are greatly indebted to Dr. Carrier, not only for the able and instructive manner in which he has dealt with the subject, but for the carefully collected statistics of the present existence of venereal diseases in our state, and which I am sure are as surprising as they are appalling to most of us.

The keynote of the prophylaxis in these diseases is in the education of the young, and important measures should be taken to impress this fact. The medical profession can best bring this about through the States' Boards of Health. We must first, then, educate the physician, and the paper we have just listened to is the right kind of instruction to him, and should be given every medical student during his freshman year.

One of our state laws is to the effect that "Any person afflicted with syphilis or gonorrhoea, who has not been cured, and who shall marry, shall be punished by a fine of not less than five hundred dollars;" and yet how many physicians acquaint their patients with such laws or expose them that they may be punished, after having committed the crime?

Until the public can be properly educated to the great dangers from these diseases, and proper provision is made for the care and treatment of the afflicted ones, in hospitals, little progress can be made.

Guy L. Kiefer, Detroit: I am particularly personally grateful to Dr. Carrier for presenting this paper, because I believe that the prevention of the spread of venereal diseases is one of the most important and at the same time one of the most difficult problems with which the public sanitarian has to contend.

I agree with Dr. Carrier that the best work can be done by means of a campaign of education. I believe that if his paper could have been read to a lay audience of five or ten thousand people, it would have accomplished more in a short time than we can accomplish in any other way. I believe such information as is contained in the doctor's paper should have the widest circulation.

As regards the examination of inmates of houses of prostitution: The Board of Health is doing some work along this line in Detroit. We require the women to be examined and present

certificates of good health at least once in two weeks. These certificates are collected by the Police Department. The examinations are made by physicians employed by the women. While we know that this plan is imperfect, we believe it has done some good. We have, during the past two or three years, found perhaps forty or fifty women who were diseased and have had them removed to the hospital department of the House of Correction. Much can be said for and against this medical inspection, but I believe it is a step in the right direction. The inspections should be made more frequently and by physicians paid by the city.

W. J. Herdman, Ann Arbor: The importance of the subject that Dr. Carrier has brought to our attention in this and previous papers is so wide-reaching that he ought to have had a much larger audience. I regret that it was not read before the general session of the Society rather than before this section only. I heartily agree with what has been said by others on the full and complete exposition of the facts by Dr. Carrier as to the evils of venereal diseases, and commend his persistency and fearlessness in presenting them. I believe it to be the judgment of all of us that we owe it to the citizens of this state to give a much wider publicity to the information which this paper contains.

I regard it as a solemn duty that devolves upon us as the chosen guardians of the public health to make clear to all citizens, parents and guardians how prolific is this cause of disease, and how destructive are its effects both upon the individual and the race; and to that end I would suggest that a committee be appointed from this section, to prepare some resolutions upon this subject to be presented for consideration and adoption at the general session tomorrow morning."

Louis J. Hirschman, Detroit: One of the most important reforms that we should urge is the proper teaching of physiology in the schools, both public and private. As it is nowadays, the teacher, himself possessed of but a smattering of the subject, gives his class a few lessons on circulation, respiration, digestion and assimilation from text-books woefully inadequate, and the most important subject of all, reproduction, is shunned like a pestilence. We must, first of all, educate the educators! We must insist that the boards of education provide for lectures on physiology to be given the boys and girls separately, and as far as possible by physicians of their own sex—but always by a physician. Parents should instruct their children at home, before they receive their instruction from

vicious associates. If parents feel diffident, they should send their children to their family physician. Boys who have passed the age of puberty should be taught that nocturnal emissions at certain intervals are perfectly physiological, and that sexual intercourse is not essential to "manhood," as their older companions would have them believe. Boys and youths should be taught the dangers to themselves and their future of the ravages of gonorrhœa and syphilis and their sequelæ. We should show them colored plates which depict the horrible afflictions brought on through promiscuous intercourse.

Another evil which must be corrected is the abuse of the rule enforced by many health boards, of requiring periodic examinations of prostitutes *by their own physicians*. In our own city, semi-monthly examinations are required, and certificates furnished, which are displayed by the prostitute to all comers as an evidence of her cleanliness and freedom from disease. These certificates are not worth the paper they are written on, for two reasons. First, the examination consists of ocular inspection through a vaginal speculum, and that often by lamp-light, and always in the patient's room. How any physician can determine whether or not gonococci are present without a microscopical examination is beyond me. I have a case in Harper Hospital at present, from whom I removed a pair of large, acute pustules last week, who was examined by a physician who does perhaps the majority of these "examinations" in our city, just 24 hours before I saw her, and given a certificate of good health! Let us suppose, for the sake of argument, that the semi-monthly examination is made, and the microscope reveals no evidence of disease, and the woman gets her certificate. Her first visitor infects her and every one who follows until the next examination, misled by the sense of security given by the certificate, becomes likewise infected. Moreover, unscrupulous doctors in the pay of this class may give false certificates, and have done so, whether knowingly or not.

If such examinations are to be of value, they should be made at least daily by salaried inspectors of the health boards, and carefully prepared slides should be examined microscopically before any certificate is issued. Even if this is done, what about the male offender? What about the clandestine intercourse outside of known places of prostitution?

While we know that illicit intercourse has been and is the sin of all grades of society, the professional prostitute is largely recruited from those whose financial condition is not as comfortable as their more fortunate sisters. Excluding

country girls led astray, abandoned wives, victims of hasty and secret marriages, the majority of these women lead the life, not on account of the love of it, but because of the easy and large financial returns. Seven years ago, while connected with the staff of city physicians of Detroit, I was called in one summer month to attend an unusually large number of attempted suicides among this class of women, and on inquiry as to why they had taken up a life which had grown unbearable to them, the replies were, almost always, that it was not because of the love of it. The usual answer was that it provided them with the means to wear just as costly jewels and expensive raiment as the best of women.

So you see the whole social fabric must be changed. Women's work must be made easier and more remunerative; shop and factory girls must be better paid; early maternity encouraged; and the education against these evils started at once and by us all.

Wm. F. Breakey, Ann Arbor: As usual, the speaker who does not get in early in a discussion finds his remarks anticipated. And there is but little left for me but to join in the general commendation of Dr. Carrier's paper. The unanimity of opinion expressed is a credit to the section and to the high moral standard of medical science.

The charlatan not only preys on the ill and the sins of the unfortunate, but makes no effort to prevent or restrict the spread or transmission of the evil.

For the benefit of some of our members who seem to think this an initial effort, I wish to remind them that Dr. Carrier has been chairman of and pretty much the entire committee for several years to report upon the restriction of venereal diseases. And this paper furnishes the best reason why he should be continued.

The data presented should impress every one whether physician, sanitarian, humanitarian, or from whatever viewpoint, with the need for earnest, united and persistent endeavor to restrict this many sided menace to the welfare of the race.

The gravity of tuberculosis, pneumonia, yellow fever, the plague and other infectious diseases, consists chiefly in their mortality, real or relative—and that has been greatly lessened by medical science. These get into tables of vital statistics. But if all the deaths to which syphilis has contributed could be counted, we should see an appalling list; while its frightful influence in causing moral, mental and physical degeneracy of the human race is incalculable. But it is easy to

talk about the ravages of disease. The practical question is what shall we do about it? Logically a communicable disease should be—to adapt a word—restrictable.

It is not like a disease acquired in ordinary ways, but having its origin in the majority of cases in the gratification of the procreative function. And for this reason held to be an indelicate subject for other than scientific discussion. Yet the press, secular and religious, prints advertisements bordering on indecency, misleading and mischievous, with rarely a word of editorial disapproval, unless it be of some far off region.

A large number of these unfortunate subjects of acquired syphilis are as innocent of responsibility for cause as are the still more pitiable victims of the inherited disease.

Many of these cases are due to or aggravated by ignorance. And there are no popular or effective agencies for enlightenment.

The question of restraint then resolves itself into a campaign of education not wholly medical, nor of the medical profession, though it must lead—involving legal and still more social phases as well.

Many difficulties would be found in the way of placing venereal diseases on the list of those dangerous to public health, however true we believe it.

There would need to be some modification of the question of "privilege" of physician and patient now protected by courts, before such cases could be "reported" or quarantined if this were otherwise possible. Every case of syphilis is not dangerous to public health at the time it comes under the notice of the physician, and there would be lack of agreement as to the time it continues so. The innocent victims should be protected from the disreputable notoriety attaching to the name of syphilis. And indeed a physician would need to be sure of his diagnosis, and evidence of it. The announcement of such a diagnosis has been held actionable for libel.

But while, for obvious reasons, it is impracticable to manage the sanitary side in the same way as other communicable disease, it is all the more important that we collect accurate data as a part of public enlightenment.

There is, however, one condition in which it has always seemed to me a physician should be freed from obligation to any code, ethical or legal, that requires him to assent by silence to the danger an innocent man or woman incurs by marriage with a syphilitic known by the physician to be infectious, and who refuses to take the

advice of his physician as to the time when he may safely marry.

As Mr. Seward said of some statutes concerning slavery: "There is a higher law." The evil is deep-rooted and threatening, and efforts to restrict it should unite all agencies for good, and the campaign of education should enlist the active co-operation of all concerned in sanitary or social science, human teaching and moral uplifting of the race.

A. E. Carrier, Detroit: I wish to thank the members for the interest manifested in the subject of my paper.

In New York there has been organized a society with a membership drawn from all professions under the leadership of physicians to prosecute this work of prophylaxis by educational methods, and I think that similar societies should be formed in every city.

Reporting venereal disease, while difficult, should be brought about. We have seen that a vast proportion of deaths from pelvic diseases in women result from venereal infection, but death certificates do not so report. I am aware that Dr. Baker made the attempt to secure (while secretary of the State Board of Health) reports from physicians in Michigan of venereal cases under their care, but the boards have not the power at present to make such reports compulsory. If venereal diseases were obliged to be reported, while not giving anything that would indicate the sufferer, I imagine that the statistics that I have given would fall below the truth.

The work done by Dr. Kiefer is a stepping stone, but so long as the prostitute can select her own physician to furnish a card of health the purpose will not be accomplished.

The male offender escapes the inspection; how can we reach him? I did not intend to criticise the State Board of Health in stating that it does not recognize venereal diseases as contagious affections. Venereal diseases are contagious, but health boards do not in fact treat them as such, nor attempt to safeguard the community by exercising the same measures as used in other contagious diseases.

Our reliance for the present is in educating the people up to a realizing sense of the dangers of these diseases, and laws will then speedily follow.

REPORT OF COMMITTEES.

a) Report of Committee to secure data regarding the Prevalence of Venereal Diseases in Michigan.—A. E. Carrier, Detroit, Chairman.

"At the time this committee was appointed, two years ago, it was hoped that some valuable statistics might be obtained from the profession throughout the State regarding the prevalence of venereal diseases.

In an effort to secure such statistics a blank form was published in THE JOURNAL of the Michigan State Medical Society giving opportunity for a tabulation of the cases of gonorrhœa, chancroid and syphilis occurring in the practice of the members of this Society. In addition to the simple enumeration of cases, information was requested regarding sources of infection, and individual opinions were asked concerning prophylactic measures to be adopted. The number of replies received were discouragingly small, but served as a corroboration of what was generally known that these disorders were widely prevalent. In order to acquire accurate knowledge a much more vigorous and systematic canvass is necessary and the active co-operation of the profession at large is imperative.

If personal letters with return postal cards were sent out much larger returns would result. This plan would necessitate a stenographer, postage and stationery, entailing an expense of possibly a hundred dollars. With such a sum of money available to cover the actual outlay, much more comprehensive information could be looked for. Failing this, a much larger committee with a member from every county should be appointed. These county members should be expected to gather by personal solicitation or otherwise from every physician (be he a member of this Society or not), all pertinent data and report in full (every three to six months at least) to the chairman of this Committee who would then tabulate and systematize these county reports."

Report accepted and committee discharged.

b) Report of Committee, appointed by the Section on General Medicine on Wednesday, June 28th, to which was referred the subject matter brought to the attention of the Section by the paper of A. E. Carrier, Detroit, on "Venereal Prophylaxis:"

VENEREAL PROPHYLAXIS.

"Your committee to whom was referred the important subject brought to the attention of this Society by Dr. A. E. Carrier, of Detroit, respectfully submits:

1. That they but express the profound conviction of the entire medical profession of to-day in declaring that syphilis and gonorrhœa are the most prolific causes of disease, deformity, and death, of any whose ravages afflict mankind.

2. That these are unquestionably "dangerous and communicable" diseases and that they should be dealt with as such from every point of attack—educational, social and legal—from which

their propagation may be checked and their extermination be effected.

3. That since the first step in the removal of a threatening danger or any existing evil is to have it clearly defined and apprehended by those who are its victims, it becomes our imperative duty as guardians of the public health to boldly and effectively make known our convictions on this vital matter.

With this end in view and in the simple discharge of a duty which devolves upon us by reason of the service to humanity we have assumed, we would recommend:

a) That a standing committee of this State Medical Society be created at this meeting, consisting of not less than three members, who shall henceforth act as the exponent and executive arm of this Society in dealing with this important matter, and who shall be given authority by this Society, to use all justifiable and honorable means for conducting an active and vigorous campaign against the spread of venereal diseases.

b) That this committee be instructed by this Society to confer with the State Board of Health, and recommend to that board that it begin the education of the people to the fact that gonorrhœa and syphilis are dangerous, communicable diseases, among the most important of those that cause sickness, deformity and death, and that as such they are properly covered by the law of this State which requires that their "modes of propagation shall be taught in the public schools in such manner as will be discrete and expedient."

c) That this committee be further instructed by this Society to co-operate with the State Board of Health, the local Boards of Health, health officers and the County Medical Societies throughout the State, in the way of furnishing statistics, information and literature that will aid them in getting a correct knowledge of the nature and effects of these diseases before the minds of our citizens, and that to this end they utilize all known channels and create such other as they may think necessary for the effective propagation of such knowledge and information—the pulpits, the press, superintendents of public instruction, Boards of Education, teachers of youth, parents and societies such as are now organized or may be organized "for the study and prevention of venereal diseases, or for the promotion of social purity."

d) That this committee be authorized to receive voluntary contributions to aid them in this work and be granted the privilege of expending, at their discretion, any funds that may be placed in their hands for this purpose, provided they keep a strict account of such receipts and expenditures, and make reports of the same and the progress of their work to this Society annually."

WM. J. HERDMAN, Chairman.

HENRY B. BAKER.

ALBERT E. CARRIER.

C. B. BURR.

H. W. LONGYEAR.

GUY L. KIEFER.

Report accepted, and on motion of H. O. Walker, Detroit, duly supported, a committee of three was appointed, consisting of A. E. Carrier, Detroit, A. P. Biddle, Detroit, and W. J. Herdman, Ann Arbor.

COMPOUND FRACTURES WITH CRUSHING OF THE SOFT PARTS.*

W. T. DODGE,
Big Rapids.

I have limited this paper to a discussion of the treatment of severe crushing injuries attended by fracture of the bones because in a discussion of the subject by this section last year there appeared to be a difference of opinion upon the proper method of giving primary treatment to this class of injuries. I refer exclusively to cases of severe injury to the soft parts where there is reasonable doubt concerning the ability of the injured tissues to live and where a small factor may turn the scale hopelessly against the patient. In such cases I believe the proper plan of treatment to be as follows: Stop active hemorrhage, remove everything tending to interfere with the circulation. Cleanse the parts as thoroughly as possible without adding to the traumatism. This can most safely be done by means of profuse douching with warm sterile water, open pockets that may retain effused serum, remove loose fragments of bone, place the limb in a straight position and retain there by some simple application that will not constrict the parts and interfere with the free circulation of blood.

I never have occasion to use patent splints in these cases, and am partial to the even soft supports of a pillow placed in a rubber pillow case. Sand bags may be used to advantage and frequently folded newspapers. Do not place cum-

bersome splints upon such a case, and fasten with a roller bandage. Do not go at the lacerated tissues with a scrubbing brush and chemical antiseptics. Do not in any way add to the traumatism already done. Do not amputate until time has been given for reaction to occur, occasionally an apparently hopeless leg will be saved by delay. Even a great deal of localized gangrene or necrosis may occur and the limb still be saved. If, however, the crushed and lacerated tissues are further handled the danger of completely destroying the vital principles is greatly increased. In 1896 I read a paper upon this subject, and in looking it over find that later experience has only served to confirm the views therein expressed. One of the cases there reported illustrates so completely the principles I am discussing that I copy a brief abstract. A. B. Admitted to Mercy Hospital January 22, 1895, having been brought sixteen miles in a sleigh with the temperature at zero. His left leg had been caught between two logs, and a compound comminuted fracture of the tibia and fibula sustained. The first meta-tarsal bone had also been fractured and a portion torn from its ligamentous attachments, forced through the skin, stocking and boot and thrown a distance of several feet from the foot. I found him nearly dead from cold and loss of blood, the leg had been tightly constricted for several hours and was black and cold, especially over the top of the foot. A portion of the tibia I found upon the leg at a distance from the wound, and

*Read before the Section on Surgery at the annual meeting of the Michigan State Medical Society at Petoskey, June 29, 1905, and approved for publication by the Committee on Publication of the Council.

the greater portion of the first meta-tarsal bone was missing altogether. As the patient was pulseless and would evidently die if subjected to further shock, and as no active bleeding occurred when the constriction was removed, I surrounded the leg with warm bichloride dressings, placed it upon hot water bottles, had stimulants administered and left the patient with the expectation of amputating the leg when he recovered from the cold and shock.

The next morning the patient had not entirely reacted, the top of the foot was black and cold. Numerous punctures were made over its surface and much serum exuded. Amputation was postponed for another day. On the following morning preparations were made to amputate the leg when it was found that the circulation had become established in the foot and that it was quite warm. Accordingly the fractured tibia and fibula were wired after thorough cleaning, and the skin closed over them. The foot was drained. Tibia and fibula united kindly without trouble, but much suppuration of the foot occurred including necrosis of

the remaining meta-tarsal bones, which were eventually all removed. When the foot finally healed it was somewhat shorter than the other on account of the loss of the meta-tarsals, but there was good motion at the ankle joint and his foot was quite as useful as the other. He was in the hospital six months. It would be difficult to imagine a crushing injury more severe than this one was so far as related to the soft tissues of the foot, and the result taught me that no matter how severe the injury might be, it was wise to delay amputation until reaction occurs in the system at large, and in the local tissues involved. In other cases I have since 1895 saved limbs by removing as much as four inches of necrosed bone with a chain saw, the periosteum being preserved, new bone forming rapidly in an open wound, the whole being finally covered by skin grafts and sound legs produced with no appreciable shortening. Each of these cases must be treated according to the special indication presented. We must consider the patient, the surroundings and the care he is likely to have, and adopt methods of treatment accordingly.

A NEW METHOD FOR THE WITHDRAWAL OF PLEURAL EFFUSIONS.*

W. M. DONALD and R. E. MERCER,
Detroit.

Some years ago, while crossing the Atlantic, I ran upon a physician from California who was bound eastward to see

what he could pick up in the foreign medical centers. In the course of conversation he asked me if I had ever visited one of the Italian clinical centers. Upon my negative reply he added, "If you have time it would pay you to see some of the northern Italian cities; they have been

*Read before the Section on General Medicine at the annual meeting of the Michigan State Medical Society at Petoskey, June 29, 1903, and approved for publication by the Committee on Publication of the Council.

doing excellent work there for a number of years, and work that is little appreciated in America."

Since then I have had ample reason through travel, through observation, and through reading, to attest the correctness of this physician's statements. Any one who has followed medical literature during the past few years cannot have failed to notice the increasing frequency with which extracts and excerpts from Italian medical journals are appearing in the English and American medical press.



These extracts are all indicative of a high degree of scholarship and thorough mastery of clinical methods, and it has been a pleasure and a profit to me always to observe them as they have appeared from month to month.

About a year ago I ran upon the translation of an article from an Italian journal (*The Italian Medical Gazette*), somewhat emasculated it is true, but still possessing elements of force and strength, which attracted my particular attention.

It had reference to a new method for the withdrawal of pleuritic effusions and their replacement by sterilized air. Ample experience with Potains' aspirator had long since convinced me that the method of withdrawal of effusion in the pleura by Potains' instrument was susceptible of considerable improvement. This article to which I refer, suggested to me the method which it seemed to me possessed the elements of improvement for which I was looking.

A description of the instrument designed for the purpose was not given, but references to it permitted my colleague, Dr. Mercer, and myself, to devise an instrument which will carry out the essential principles of treatment to which the article refers; that is, the withdrawal of only a portion of the pleuritic cavity and its replacement by approximately the same quantity of sterilized air.

It is a well-known fact, that the use of Potains' aspirator permits of the withdrawal of only a portion of the pleuritic exudate. When we realize that the aspirating needle is plunged into the thorax usually about the seventh interspace, and that the pleural cavity extends well down to the eleventh interspace, we can well understand the impossibility of the withdrawal of all the fluid by this method.

Any one, moreover, who has had experience in pleural tapplings by this method of Potain, can recall the distressing symptoms of dyspnoea, cough, and sometimes collapse, which follow the operation. The cause of these distressing symptoms is no doubt due to the production of an actual cavity, or a negative pressure, in the pleura by the release of the pressure from the compressed lung and the dilatation of the compressed blood

vessels in the lung. All text-books give directions as to the stoppage of the flow during the operation when such symptoms supervene.

Where the pleural cavity has been filled for a long period by a serous or sero-fibrinous effusion, and the lung tissue has grown gradually accustomed to the pressure consequent upon it, the lease of this pressure and the removal of the support given to the lung tissue by the pleural exudate must naturally manifest itself by the unpleasant and sometimes dangerous symptoms (cough, dyspnoea, collapse), of which we have already spoken. One must admit of course that many cases of pleuritic effusion are tapped with Potains' instrument without any of these symptoms supervening, and that moreover, many cases of pleurisy are cured by the partial withdrawal of the fluid from the pleural cavity; the release given to the compressed lymphatics by a withdrawal of even a *small* portion of the exudate being sometimes sufficient to permit them to reassume their normal functions and to carry off the remainder of the effused fluid.

The writers believe, however, that could the whole of the fluid be withdrawn, it would mean a more thorough and scientific operation, and could the fluid be replaced by a cushion of sterilized air, which would act as a splint to the lung which has just had its support or splint of fluid withdrawn, we must of necessity have a condition less inimical to the continuance of the patient's recovery with promptitude and certainty. And where, moreover, the common tendency to re-accumulation of the effusion is present, your essayists claim a decided advantage from the support given to the leaky, weeping pleural cell by the cushion of

sterilized air. The Italian clinicians claim to have demonstrated the force and truth of these contentions.

The method of which I spoke was first devised by Prof. Forlanini, and has been used by a large number of his followers throughout northern Italy. As I said in the early part of my paper, I have been unable to acquire exact information in regard to the form of his instrument, but working upon the suggestion contained in an article by Pisani, published in the *Italian Medical Gazette* of May 3rd, 1904, Dr. Mercer and I have devised the instrument which I show you here to-day. It may differ in minor details from that of Forlanini, but in its essentials it is the same, and carries out to the letter the principles advocated by this worker.

The apparatus is very simple, and while for the moment or two the array of tubes is somewhat bewildering, a cursory study will show that it is not any more complex than the instrument of Potain. It can be made practically complete by any physician possessing a little mechanical ingenuity. It consists of two wide-mouthed bottles stoppered by either rubber or cork, through which are inserted tubes of metal or glass which connect with an ordinary fountain syringe tube. The bottles for accurate work may be graduated so that the amount of fluid withdrawn, and the amount of air reinserted, can be measured.

One which we will call A has three tubes running through the cork; one (c) extending nearly to the bottom is connected to a similar one in bottle B with a rubber tube of, let us say about four feet in length; the other two extend just through the cork, one of them (d) being connected to a short glass tube filled with sterile absorbent cotton, and the

other with a tube leading to the needle (e).

The other bottle, which we shall call B, has two tubes; one (i) as in bottle A reaching nearly to the bottom, and the other (f) a short one which may be used to withdraw the overflow, or by the attachment of an aspirator pump to obtain greater suction pressure upon the other bottle, that is, upon the fluid which is being aspirated. This, however, I believe to be rarely necessary. All the pressure that is desired can be secured by the lowering of the second bottle, and so increasing the syphon pressure. The bulb (g) is convenient when filling bottles, but must be detached when instrument is used.

The tubes leading to the needle, and air filter, and between A and B are controlled by wire clips. Clips from fountain syringes, a couple of large empty tablet bottles, three or four glass medicine tubes, some rubber syringe tubing, and an old antitoxin syringe constitute the paraphernalia necessary for the manufacture of this apparatus by a physician himself. The rubber corks and metal tubing running through the corks make more perfect joints, and so constitute a more perfect apparatus, but the writers have used the other and more simple form of apparatus and have found it to work satisfactorily.

DIRECTIONS FOR USE.

Fill both bottles slightly more than half full of sterile water; insert the tubes firmly; close the clip on air filter, raise B until the water fills bottle A with the three tubes and flows from the aspirating needle, then close clip on that tube and lower bottle B, open clip on air filter and leave it open until bottle A is about two-thirds full of filtered air, then close clip on air tube and apparatus is ready for use.

Insert the needle in the selected spot on

the affected side, open clip on the needle tube and the pleuritic fluid will immediately flow into bottle A and over into bottle B. When about eight ounces, or 250 Cc., have been withdrawn, raise bottle B and the water will flow back into bottle A, forcing the filtered air in it through needle into the pleural cavity.

By repeating the process, opening the air filter, and refilling bottle A as necessary, the fluid can all be withdrawn and replaced by an equal measured quantity of filtered or sterilized air. If it is desired, the cotton in the tube can be impregnated with formaldehyde and the pleural cavity can be filled up with this form of air. It must be remembered, however, that formaldehyde is decidedly irritating in its qualities and consequently a very small quantity of the medicament must be introduced.

Bottle B can be emptied as filled by shutting off the flow from bottle A and pouring out the fluid contained in it. Or it can be allowed to overflow through the overflow tube on B into another bottle or vessel. It is considered hardly necessary to replace the fluid with an exactly equal amount of sterilized air, although a liberal amount should be introduced in order to procure a thorough emptying of the pleural cavity.

After that has been done, the operator can use his own discretion as to whether he will allow the air to remain in the pleural cavity or will withdraw a small portion of it. Some of the Italian operators do the latter. The artificial pneumothorax produced by the introduction of this air is found to disappear through the absorption of the air within a few days.

Advantages of the operation can be summed up as follows:

1. All the fluid can be withdrawn at once.

2. There is no pain and no distress, except from the introduction of the needle, through the whole operation.

3. The lung is splinted by the cushion of sterilized air and is permitted to expand only very slowly.

4. The air pressure prevents the leaking of fluid through the cells back into the pleural cavity, and the reaccumulation of the fluid there.

5. The apparatus can be improvised by any physician, or can be manufactured at a very low figure by any instrument manufacturer.

6. It is believed to be especially adapted to cases of old effusion where the withdrawal has been postponed to great length, and cases where there is a tendency towards the reaccumulation of the fluid.

Clinical cases might be cited from the observations of the writers and other observers, but time will not permit. Suffice it to say, that the operation has been done sufficiently often to demonstrate a utility and efficacy, at least equal to that achieved by the method of Potain, and with less distressful symptoms accompanying it.

RUPTURED TUBAL PREGNANCY, WITH POST OPERATIVE OBSTRUCTION OF THE BOWELS.*

W. K. WEST,
Calumet.

It is not my purpose in this paper to consider either the symptoms or treatment of ruptured tubal pregnancy, which are familiar to you all, but rather to refer to an unusual complication following an operation for that condition.

The history of the case in brief is as follows: I was called in haste on the morning of August 14th, 1904, to see Mrs. M., age 29, and found her in bed suffering severe pain in the abdomen, and collapsed. Facial expression anxious, skin very pale, and the extremities cold. The radial pulse was barely perceptible, too weak to count, and her general appearance that of approaching death. She

was semi-conscious but not able to answer questions. Her husband informed me that the previous morning she had passed a blood clot from the vagina, but had not flowed since. For the two weeks previous she had lost a little blood each day but had not given it any thought. The middle of June her menstruation was scanty, but had lasted the usual length of time. The July menstruation was very scanty, only lasting a day. Twelve hours previous to my call pain began in the lower part of the abdomen; it was of a bearing down nature and had continued all night, increasing in severity.

An examination showed the lower part of the abdomen on the left side flat on percussion up to a line at the level of the iliac crests. I made a diagnosis of ruptured tubal pregnancy of the left tube,

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with haematocele. As her condition was so alarming I did not dare to remove her to the hospital at once, fearing that she might die on the way. Morphine and strychnine were given hypodermically to relieve the pain and strengthen the heart's action, and heat was applied externally. In about forty minutes she looked better, and the pulse was some stronger, though still very feeble and rapid. An ambulance was then ordered, and she was taken to the Calumet & Hecla Hospital. When received there no radial pulse could be felt; rectal temperature 100. Hypodermic injections of strychnine and digitalis were given, also 500 Cc. of salt solution subcutaneously. An ice bag was applied over the pelvis on the left side. She was seen with me by Dr. H. M. Joy, of the hospital staff, who agreed with my diagnosis and the advisability of postponing operating until she had rallied some. In the next few hours there was marked improvement in the quality of her pulse, its rate being 140; but when I saw her at 3 p. m. her condition was decidedly worse, and she was evidently losing ground rapidly, and it was very apparent that she could not last much longer unless something was done to relieve her. All preparations having been previously made for an operation she was immediately taken into the operating room and ether administered. Having a septic finger at the time I asked my colleague, Dr. Rees, to operate for me. The abdomen was quickly opened in the median line, and the abdominal cavity found filled with fluid and clotted blood. The left tube which was ruptured its entire length was ligatured and removed. A three months' foetus was found in the abdominal cavity. A large quantity of blood was removed by scooping it out and wip-

ing out with gauze, but on account of her very critical condition it was not considered advisable to further prolong the operation in an attempt at removing more. The abdomen was closed by through and through sutures of silk worm gut, and the patient returned to bed. The operation lasted twenty minutes. While on the operating table she was given 1,000 Cc. of hot salt solution intravenously.

That she survived is due to the quick operation and the intravenous salt solution. At the close of the operation she looked better, although no radial pulse could be felt. Strychnine gr. 1/30 every two hours, and Tinct. Digitalis gttss. xx every three hours hypodermatically were ordered; also eight ounces salt solution per rectum every three hours.

She rallied slowly until midnight, when her pulse was 130. From that time her gain was more rapid, and the following morning her condition was very satisfactory; pulse 100; temperature 99.6. Flatus was expelled at the end of twenty-four hours, and she had a normal stool on the second day.

There were no unfavorable symptoms until the evening of the 20th, when she complained of nausea. On the 21st she had a partly formed stool but vomited several times, and had severe pain in the abdomen. The vomitus contained milk curds and bile. On the 22d the pain in the abdomen continued severe and was located in the epigastric region. The vomiting was profuse and of a yellowish brown color and had a faecal odor. Temperature 99.2; pulse 104. I concluded that there was an obstruction of the bowels and operated that evening—eight days following the first operation.

A free incision was made external to the left rectus with its center opposite

the umbilicus. Volvuli were found in three places in the ileum, the loop being held and firmly constricted in each place by well organized blood clots. The clots were of firm consistency and a reddish yellow color. Above the constrictions the bowel was distended and of a deep red color. The constrictions were freed and all the clotted blood that could be found removed. The abdominal incision was closed by uniting each layer separately. The skin was sutured with buried silver wire, and the wound dressed with silver foil and sterile gauze. Union was by first intention and her recovery was uneventful.

I have considered the report of this case of value, as in a thorough search of the literature at my command I have not been able to find mention of obstruction of the bowels due to blood clots, although I presume there have been other cases.

This case certainly raises the question that there may be danger in leaving the blood undisturbed in the abdomen, al-

though it has been stated that no such danger exists.

In a paper in the *Medical News* of Jan. 28, 1905, Dr. Groesbeck Walsh, of Chicago, states that "the policy of letting the blood clots alone is a very good principle" (referring to the operation of ruptured tubal pregnancy) and says "it has two noteworthy foundations of fact:

1. A clinical history of several hundred cases treated in this way with no untoward results.

2. The knowledge that we could not get rid of the blood even if we wanted to."

My case proves the incorrectness of his first reason, and while his second reason is undoubtedly true it seems to me to be poor policy and not good abdominal surgery to leave the abdominal cavity with a lot of blood clots in it.

In many cases the condition of the patient will not warrant a prolonged effort at removal of the blood, but when possible the surgeon should endeavor to remove all that he can.

ABDOMINAL VERSUS VAGINAL SECTION FOR INTRA ABDOMINAL CONDITIONS.*

WILLIAM BISHOP,
Bay City.

In selecting the above named subject for your consideration, I have been actuated by a desire to rescue the female from the multiplicity of operations usually performed before a woman is restored to the good health so necessary to her own use-

fulness and happiness, as well as to be able to perform her duties to her husband and her family.

Two very recent cases, a woman aged forty-six and her daughter, aged nineteen, had undergone vaginal operations, the mother an hysterectomy for inflammatory troubles about the uterus, and the daughter a double ovariectomy for "pain in the belly." Neither of these cases were

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benefited, and I performed abdominal section upon both of them after having made a diagnosis of appendicitis and gall stone in the gall bladder in the case of the elder woman and appendicitis with thickening and adhesion of the omentum in the younger. Removal of the appendix and gall stones with drainage of the gall bladder has restored the elder woman to perfect health. In the case of the daughter; exsection of the appendix and a large amount of the omentum has not only cured the patient of "pain in the belly," but has cleared up a most pronounced case of melancholia from which she had suffered. It is the vaginal route in operating on women that is responsible for a great deal of censure heaped upon the surgeon by the women and the women's friends in consequence of having undergone a surgical procedure in itself quite necessary and with the idea that one operation is going to restore her to perfect health, and if this operation is performed through the vagina, which to my mind is like working in the dark, there are other conditions which may and do exist that will still make her an invalid and which, other conditions, cannot be dealt with through the vagina. I ask you, gentlemen, if it is justice to a female patient suffering with a diseased ovary or a diseased fallopian tube to have that diseased ovary or that diseased fallopian tube removed through a vaginal incision and leave behind a mess of adhesions binding together the coils of intestine; a diseased, adherent appendix; one or more gall stones; a gastric or duodenal ulcer; a cyst of the pancreas or any other condition which will, sooner or later, require a coeliotomy for their removal. In answering this question; it might be urged that the vaginal section is only performed

when these other intra-abdominal conditions are not present. As a matter of fact, however, the vaginal operation is performed and many times performed when these conditions are present and personally, I believe that, even granting that these conditions are not present, it is better surgery to attack the pelvic organs from above, for it is my opinion that the surgeon who universally performs these operations from below and has not opened the bladder, wounded or tied the ureter as well as wounding the gut, has been protected by some Diety. At Philadelphia last year, after the meeting at Atlantic City, I told my friend, Prof. Barton Cooke Hirst, under whom I had been trained as a house physician and who at that time was performing vaginal hysterectomy for cancer of the cervix uteri, that I had broken away from his teaching and was performing abdominal hysterectomy for cancer of the cervix. I expected to learn his reasons for still clinging to the vaginal route. In a private letter from Prof. Hirst he has informed me that, "In two hundred and ninety vaginal operations (for salpingitis) by Landau, Terrier and Hartman, the bowel was injured twenty-seven times." It has been urged that, by performing vaginal section, the chances of a post operative hernia are not present. This is true, but to such a small extent in the hands of those who are rigidly aseptic and who close their wounds of the abdomen in a proper manner, that it should not be taken into consideration. Prof. Hirst has written me as follows: "I think there is a general movement away from vaginal section toward abdominal section. My own feeling is, and I believe it is the feeling of the majority of specialists, that the great disadvantages of vaginal section

are the impossibility of inspecting all the pelvic and abdominal organs; the necessity, often of doing more radical operation than is really required, and the danger of injury to the bowel and ureter. The one reason for vaginal section acquiring such a vogue for a time, was imperfect aseptic technique, which made the abdominal section more dangerous than the vaginal section, but since the improvements in this respect there seems to my mind little to recommend in the vaginal over the abdominal section.

1. Dr. J. Wesley Bovee, Washington, D. C. I had a case recently of ruptured tube, with a three and a half months' live fetus, much blood in the peritoneal cavity which I would not have discovered if I had gone through the vagina. We must not forget we have a pelvic brim and work above it cannot be done through the vagina.

2. Dr. Chas. P. Noble, Philadelphia, of four cases of extra uterine pregnancy operated upon from below, two had to be reoperated upon from above, one developed hydrosalpinx and the other a tubal mole. One of our members had hemorrhage a number of times and had to go in from above after having started from below. We are not going to gain anything by giving up the good thing we have in the abdominal operation for uncertainty of the vaginal route.

3. Theinhaus holds that the vaginal operation is to be employed in quite a number of cases, especially in inflammatory processes about the adnexa in the uterine prolapses with or without cystocele in retroversion and retroflexion, in extra uterine pregnancy, etc. He says in conclusion that two requirements are necessary for surgery by the vaginal route.

1. Greatest care in diagnosis and judgment in the selection of cases.

2. Absolute familiarity, as well theoretically as practically with all abdominal operative procedures on the female sexual and adjacent organs, because the necessity may arise (though very seldom in the hands of experts), of resorting to the combined vaginal and abdominal methods of operating. It must not be forgotten that almost all surgeons who now ardently advocate the vaginal route have performed in former years, almost all their work by abdominal section, and when the results gained by the vaginal operations taught them the unquestionable great advantages of this route concerning the immediate and remote results of their operative procedure and concerning the safety of their patients; they came *gradatim* to the conclusion of Fritsch and Thorn that it must be our principle. "What we *can* operate upon by the vaginal route must be operated on by this route."

In contrast to this, I wish to quote from an article by John B. Deaver in which he expresses himself as follows: "The writer practices and strongly advocates total ablation of the uterus by the abdominal route in early carcinoma of the uterus. I feel sure this operation promises more, both immediately and ultimately, than does removal by the vaginal route. In the early stages, I believe complete removal of the uterus, broad ligaments and the lymph channels in the latter with possibly the iliac lymph channels in some cases, should guard against recurrence with reasonable security."

Dr. Deaver in this same article notes the fact that Professor Jacobs, of Brussels, one of the earliest advocates of vaginal hysterectomy for cancer of the

uterus, has entirely changed his views, and now only does the vaginal operation when the abdominal route is impracticable. Jacobs states that he never has had a case of uterine cancer operated upon by the vaginal route to live more than three years, and that the majority were dead at the end of one year. In contrast to this he has a number of cases upon which he operated by the abdominal route that are living and well after four (4) years. Jacobs practices the removal of the pelvic glands.

Personally, I have had rather an unfortunate experience with vaginal hysterectomy for out of six (6) cases operated upon I have opened the bladder in two instances, one case suffered for four (4) months with a vesical fistula, and the other case died on the third day from

sepsis. Out of the other four, all of whom made an operative recovery, only one lived beyond one year and that one only fifteen months, and died from recurrence.

Out of sixteen (16) abdominal hysterectomies for cancer of the cervix, I have never had an operative death; have never wounded the uterine, bladder or gut; have never had secondary hemorrhage in any case, and I have three cases alive and well after five years.

1. *Journal A. M. A.*, Sept. 13, 1902, p. 627.
2. *Journal A. M. A.*, Sept. 13, 1902, p. 627.
3. *Journal A. M. A.*, Oct. 25, 1902, p. 1071.
4. *Therapeutic Gazette*, April 15, 1904, p. 234.

Freedom From Uric Acid and How to Obtain It.—Alexander Haig attributes a great deal of importance to the maintenance of the alkalinity of the blood as a means of preventing the accumulation of uric acid in the body. Although high nutrition is one of the causes of diminished alkalinity of the blood he does not believe that much is to be gained by great reduction of the amount of food ingested, as is recommended by some authorities. His rule for determining the amount of food for an adult is that the body weight in pounds is to be multiplied by nine to get the number of grains of albumin that should be consumed daily. People who underfeed themselves usually have a subnormal temperature, defective circulation, and deficient blood color, and are very susceptible to bacterial infections. The author also emphasizes the necessity, if uric acid retention is to be avoided, of warm clothing, avoidance of needless exposure to cold, of an equal division between mental and physical labor, and of abstention from fruit from October to April. He sums up his views by saying that the greatest freedom from uric acid is obtained by introducing none, and by passing out each day regularly and punctually all that is formed in the body, and that this regularity of excretion may be attained by clothing warmly, by avoiding ex-

posure to cold in every form, by eating freely of potatoes (especially in cold weather), by avoiding fruits that are out of season, and, indeed, by never taking fruit to any large extent, except in very warm weather. It is also advisable to secure the proper distribution of time between bodily and mental exertion, and to dispense with dependence on tonics, stimulants, and bracing climates. The result will be a better balance of mind and body, and a more healthy, natural, and useful existence than has been generally experienced either by ourselves or by our ancestors in the previous century.—(*Medical Record*, August 26, 1905.)

A Case of Delayed Menstruation; Flow Established at First Spontaneously, Subsequently by Treatment; Conception.—B. P. Hirst and H. Fox report this case. The patient was a woman who had no menstrual flow until the thirty-fourth year, when she menstruated three times at intervals of four months and six weeks. Five months elapsed without another period, and then in response to general and local treatment several menstruations were brought on. Pelvic examination some months later revealed the existence of pregnancy, and the date of the subsequent delivery indicated that conception had taken place about a month after the first menstruation.—(*Medical Record*, August 26, 1905.)

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Editorial.

PORTLAND MEETING—AMERICAN MEDICAL ASSOCIATION.

The handicaps to the Portland meeting were many and grave, yet nearly two thousand members were present, and took more or less part in its active work. Naturally the region west of the Mississippi valley furnished the larger number. One section made no provision for a meeting, thinking the handicaps to success insurmountable; others held fewer sessions than usual; all had fewer papers. Discussions of papers were longer and so the time was profitably occupied; all association work was completed during three days, the fourth day being occupied by a sail up the Columbia river, as guests of the local profession.

The house of delegates held many sessions, and did a vast amount of work in an intelligent manner. The details of which can be read in the Association Journal.

The membership reported is 19,285; subscribers, 17,000; the net gain of members during the year, 4,889; the increase of journal circulation being 15 per cent.; advertising, \$94,945.60, an increase of 7 per cent.; total amount received during the year, \$244,709.64—a gain of \$28,949.27. These figures show that the business end of the Association has greatly prospered. The fuller

details are most creditable to officers generally.

The action of the Trustees in establishing the Council of Pharmacy and Chemistry last winter was confirmed by the House of Delegates. A committee of this Council is to decide on the acceptance of doubtful advertisements to the Journal. It seeks the aid of physicians having large hospital service, in testing drugs, and asks for a central laboratory for certain kinds of work. The American Medical Association has thus assumed an authoritative position in protecting the individual doctor from the wiles of nostrum exploiters as was requested by the Michigan State Medical Society last year. The far reaching effects of this position, can only be realized by those fully conversant with the facts. Honest competent pharmacists, will welcome such support from the medical profession. Those who have grown fat on "ways that are dark" will oppose to the limit or change their ways. The American Medical Association, henceforth will stand for wide open scientific pharmacy as well as medicine. Criticism of its advertising and reading columns, for profiting by secret pharmacy, will be ancient history; other medical journals, especially the new State Medical Journals will have an authoritative standard. It must be that numerous journals will fall by the way.

The individual doctor will gradually learn to select only such remedies as the American Medical Association stamps with its approval and look with suspicion on all else. If outside its branches, he will be led to cast his lot with a movement which dares to enter the contest with his enemies, that he may have the means of practicing more intelligently and so successfully.

The report of the Board of Trustees graciously recognizes the fact that the Michigan State Society last year urged the Association to establish such a Council with such force as to induce them to act.

The action of the Journal management in publishing a complete medical directory of the physicians of the United States was endorsed by the House of Delegates.

A movement was started, leaving to the Board of Trustees, power to fix the time and place of meeting as would be most advantageous; and to provide for its needs and pay all expenses.

Certainly the Association is able to pay its expenses, and it ought to have its meeting arranged for the pleasure and profit of the largest number. This can be better done from the Journal office.

Had this rule prevailed there would have been fewer handicaps at the late meeting.

Suggestive of the regard for the Association by European leaders, was the presence of Prof. Hirschberg of Berlin, Germany, known for years as one of the world's leaders in ophthalmology. The journey twice across the Atlantic, and the entire continent of North America twice, was insufficient to deter him from accepting the invitation of the ophthalmic section, to read a paper before it and engage in the regular discussions. Amid universal enthusiasm he was elected an honorary member. Section members will never forget his keen interest in all work, his enjoyment of the play, his gracious manner, his delight in studying all that pertained to the evolution of the medical profession in the new world. He carries back to his home the honor, respect and affection of his American colleagues.

From time to time visits to the Association has been made by European leaders. Proper effort on the part of section officers would multiply these to the mutual benefit of all.

Increasing better work by the sections will prove a giant magnet to all genuine students.

The work of the Council on Medical Education marks another intelligent step in unifying this important part of organization.

The appointment of a Legislative Committee in connection with the Journal office, will simplify and make more effective the work done by many committees—it will represent the power of the profession in its relation to legislative councils.

The power of the Association has increased in proportion as those who plan and execute its business have the largest knowledge of the facts, and plenty of time in which to apply this knowledge.

Necessarily this means centralization of both knowledge and power at the Journal office. We wish it could be farther increased. Thus if the number of trustees were reduced to three, so located that once or twice or more monthly, they could meet in the Journal office and take an active part in its management, the medical profession would be greatly advantaged.

Finally, every doctor who twice crossed the continent, took a post-graduate course never to be forgotten; his country is bigger and better; he understands the conditions under which doctors live and do their work on the vast plains or among the mountains; his respect for and confidence in his brethren on the Pacific slope are enlarged; unconsciously he embibed a larger faith in the final unification of the

profession; was stirred with greater pride in past achievements, and moved with a fresh impulse to exceed them in the future.

THE GROWTH OF THE AMERICAN MEDICAL ASSOCIATION.

The growth of the American Medical Association should be the cause of the greatest satisfaction to every member. During the last six years, it has been almost phenomenal, increasing from 7,997 in 1899 to 17,570 in 1905. During the same period the circulation of the Journal has increased from 10,550 to 33,268 copies per week. This growth has been the result of organization and has been made possible by the persistent and continuous effort of the officers of the association. We are pleased to learn that Doctor McCormack of Kentucky is to continue the work which he has thus far so successfully carried out.

Michigan has been a leader in this development. From the statistics presented by the trustees to the House of Delegates at the Portland meeting, it is evident that our state stands sixth in membership, being surpassed by Illinois, Pennsylvania, Ohio, New York and Massachusetts, in the order named. The latter state has but ten more members than have we.

In the table giving the proportion of physicians receiving the Journal to the whole number in the state, Illinois alone of the above mentioned states surpasses Michigan. Thirty-six per cent. of the medical men of this state are either members of the association or subscribers to the journal.

B. R. SCHENCK.

SOLIDARITY AMONG MEDICAL MEN.

The underlying condition for reform of admitted abuses, is solidarity among medical men. The "go as you please" habit never won hard contested battle. For centuries individuals in the medical profession have practiced this habit, with the result that as a whole it has been derided, and unable to command respect; much less obedience to its teachings.

The spirit now moving, is solidarity; all that makes for this should be encouraged; all that opposes, cast aside.

Solidarity demands that every individual pull toward a common end; no progress results when each individual pulls in different direction.

Solidarity forbids interference with the efforts of colleagues; no biting or kicking is permissible, the energy thus wasted is directed in pulling the common load.

Solidarity prompts each to encourage his fellow worker, an encouragement possible in a thousand ways, and ensures an infinite increase in the total product of the total work of every individual doctor. Solidarity is both negative and positive; as a negative it shuts the mouths of its friends to all evil speaking, or discourteous action of fellow doctors, in public or to the laity. Such speaking and action by individuals, furnish the basis of the laity's judgment of the profession. Because doctors have befouled their own nest, so many think it dirty. Doubtless much of this was done in thoughtlessness, but staints all the same. As a husband speaks good only of his wife, or brother so solidarity would have doctor speak of fellow doctor.

One of the first fruits of modern organization, is shown in a diminution of

evil speaking by fellows; the writer has often heard drummers, and other observers remark upon this change and always with gratification.

Another product of solidarity is seen in the recognition by colleges and universities of physicians scholarly attainments. This year Harvard gave honorary degrees to Dr. J. H. Wright and R. H. Fitz; Dartmouth to Dr. C. L. Daner; Yale to A. Jacobs—a list that could be much extended.

Not doing evil to a fellow doctor is a negative element of solidarity of huge proportions. Closely associated with an unruly tongue, the disappearance of one speedily follows the death of the other.

Positively solidarity encourages the speaking and doing of kindly service to all doctors. No force is more powerful than a habit.

Solidarity is encouraged by choosing some object helpful to all and harmful to none, perfecting plans for its attainment, and putting forth all surplus energy for their realization. In this work the best thinking of members is called for, and the best judgment of all. This load is like that of the eight horse team; without an object clear and well defined, and a practicable method of attaining it, solidarity is impossible.

County and other societies are weak and unstable, unless they utilize these elements of solidarity. Members must be able to show doubters a reason for their existence. Put into this society work the same good thinking, and wise judgment that have made your private professional life a success, keep from it that which has wrought your failures.

THE DRUGGIST-OPTICIAN.

Bills before the Legislature of many states last winter attest the desire of opticians to secure the right to practice ophthalmology. Not content with the actual practice, they seek its legal endorsement.

Bearing upon the question, the *Pharmaceutical Journal*, Eng., presents evidence that druggists are seeking the right to practice ophthalmology. A candidate for this new degree describes in said journal the details of his examination by the "Spectacle Makers Company." He tells of his diagnosing and prescribing for a case of compound myopic astigmatism, and a case of four dioptries of esophoria in each eye.

There does not seem to be any law to prevent druggists securing from the Examining Board the rights of ophthalmologists in England. Hereafter "counter prescribing" will be incomplete unless it takes into account the far reaching evils of "eye strain."

Perhaps ere long we shall have "modiste-opticians" who will supply to their clientle glasses adapted both to the requirements of their eyes, and tinted and constructed in harmony with successive styles of dress.

We have long wondered that all instrument manufacturers and dealers have not followed the example of some, and entered upon the field of ophthalmology, viz., prescribed glasses on their own authority.

The real underlying principle of this matter rest on the question is he competent? If competent, no reasonable person will object to the practice. The druggists, opticians, instrument manufacturers, etc., claim competence to deal with

such cases of disability as seeks their aid; educated physicians, deny said competence.

From long centuries past, the former have practiced in accord with their claim, but as science advanced, physicians have been able to gradually emerge from the realm of guess to one of clear knowledge.

In the light of this they know that the largest knowledge of the human body is little enough to wisely prescribe either medicine or spectacles. Hence they insist that the standard set by the State for the qualification of its physicians should be applied to all who receive the State's authority, to prescribe for those disabled either by deformities, of either limbs or eyes, or infected by malignant germs, or the victims of accident of any sort.

If either druggist or optician seek the right to prescribe for the sick, either drugs, the knife, glasses, trusses or other means for making them physically better able to do the work of life, let him secure the knowledge, now required by the State—become a physician, and he will be welcomed by all parties.

As pointed out in a previous article, this matter is important in other departments than ophthalmology. There is no reason why outsiders may not seek to practice any specialty on State authority if only the same be more profitable than qualifying themselves as physicians according to the present standard. Carried to its extreme limits, medicine would then be practiced by those unable to pass the present state examination for physicians, and the object of the latter be entirely thwarted. Better far abolish the entire law, and depend upon natural selection for a properly educated profession.

It remains for physicians to study the

facts in the case and teach their constituency the wisest course to pursue.

CAISSON DISEASE.

C. J. Aldrich, *Med. News*, Nov. 26th, 1904, gives his studies of fifty cases of compressed air disease. The symptoms occur only during exposure to the pressure or return to the open air—may be delayed several hours. Every grade may be met from transient twinges to convulsions, coma and death. Pain is intense, with remissions and exacerbations, particularly severe in the stomach and about the larger joints; victim is bent double. Neuralgic cases last from few minutes to five or more days. Some paralytic cases recover quickly, others perish slowly from exhaustion and cystitis. Many are permanently crippled. In lethal cases death is swift. Some brain types may be transient, with headache, giddiness, double vision, incoherence and sometimes unconsciousness and convulsions. Paralysis may be on one side or both or of both lower limbs. The bladder and bowels are almost certain to be involved. A limb may lose power of movement and suffer great pain. Not infrequently perforation of the drum occurs.

There are seven excitants to the disease. (1) Degree of pressure. (2) Length of sojourn. (3) Rapidity of transition to normal atmosphere. (4) Insufficient time between leaving and returning. (5) Lack of sufficient ventilation of the areas under pressure. (6) Exposure to damp chilly air after leaving the lock. (7) Active muscular exertion after leaving. If sufficient time were allowed for locking out the disease would rarely if ever occur.

County Society News.

ALLEGAN COUNTY.

The Allegan County Medical Society held its regular meeting at Fennville, June 30, 1905.

R. J. Walker, of Saugatuck, read a paper on "Purpura."

Abstract.

By purpura we usually understand that blood has escaped from the vessels in which it naturally belongs. It may become fixed just beneath the skin or mucous membranes or may escape externally. This extravasation of blood may or may not be associated with other symptoms or conditions, such as those affecting the joints, nerves or other parts of the body.

VARIETIES OF PURPURA.

I. Newly born children are sometimes purpuric. There may be hæmorrhage at the navel, into the bowels mucous membranes, etc. Syphilis is often a factor in these cases.

II. SYMPTOMATIC PURPURA.

The hæmorrhage here plainly belong to another condition which causes it. The following are some of these conditions:

(a) Infectious diseases such as pyæmia, septicæmia, measles, scarlet fever, small-pox, etc., frequently are associated with hæmorrhages into the skin and mucous membranes from pin point size up.

(b) Symptomatic purpura may be toxic in origin.

Different forms of poisoning produce purpuric spots as seen in snake bites, or from taking certain drugs as copaiba, quinine, belladonna ergot, mercury, iodides.

(c) CACHECTIC PURPURA.

Purpura occurs in many diseases associated with great constitutional disturbances as in cancer, tuberculosis, Hodgkin's disease, Bright's, scurvy and in old age.

(d) NEUROTIC PURPURA.

Seen in locomotor ataxia, inflammation of the spinal cord, severe neuralgias and sometimes in hysteria.

(e) MECHANICAL PURPURA.

Caused by excessive exertion, seen in whooping cough, epilepsy, etc.

III. Arthritic or rheumatic. Under this heading we have:

(a) SIMPLE PURPURA.

This form is seen mostly in children and up to the time of puberty, is seldom severe, often occurs in diarrhoeas; gets well in 8 or 10 days; rheumatic pains may be present.

(b) PURPURA RHEUMATICA OR PELIOSIS RHEUMATICA.

Usually occurs in males, more often between 20 and 30. Frequently sets in with sore throat and multiple arthritis, urticaria, wheals, nodular infiltrations called erythema nodosum and sometimes vesication may occur. There may be present œdema and albumen may be found in the urine. Occasionally mucous hæmorrhages occur. Temperature runs from 100 to 102.

(c) HENOCH'S PURPURA.

This also occurs chiefly in children. There is a liability to relapse; severe pains occur in the stomach and bowels; there may be vomiting, or diarrhoea, or hæmorrhages may occur in various places. The joints may be swollen and painful.

IV. Purpura hæmorrhagica. In this form the loss of blood may be very great. It may escape into the tissues or from almost any part of the body. It generally occurs in young and delicate girls, lasts 10 to 20 days, and is sometimes fatal. There is slight fever.

I have now mentioned four kinds of purpura.

I. That occurring in the new born.

II. The symptomatic purpura.

III. The arthritic.

IV. The hæmorrhagic.

TREATMENT.

A long list of drugs is mentioned for the treatment of purpura. Some of these drugs are as follows: Arsenic, calcium chloride, turpentine, adrenalin, aromatic sulphuric acid, ergot, tonics, etc. In each case the drug best suited for that individual case must be selected. If rheumatism is associated with the case give anti-rheumatics. If there is a history or a possibility of syphilis treat accordingly.

Opiates, ice and rest are indicated where the loss of blood is alarming.

REPORT OF CASE.

Patient a school-boy, 16 years of age, of good, moral habits, easily controlled by his parents and always kept good hours. He never did hard work either mentally or physically, and although fond of ball and other games, seemed always to be moderate in his exercises. He was of a ruddy complexion, well built and up to this date had enjoyed a good appetite and had regular bowels.

His family history was good and he had never been sick except with the diseases common to childhood.

On Friday, October 7th, he appeared to be so miserable at school that he was sent home. For five days he stayed about the house expecting each day to feel better.

On the fifth day I was called to see him. He

had not yet gone to bed, but was suffering severely with pains in his stomach which were not increased by pressure. He had been applying heat externally. His bowels had been regular, temperature and pulse were normal and tongue almost natural in appearance. His pains were so severe I gave an opiate and that night a large dose of castor oil. A slight scarlet rash could be seen about his elbows and arms.

Next day I found him in much the same condition; the castor oil had moved his bowels quite freely; they were still loose, and continued moving once to several times daily for the next six weeks of his sickness. The abdomen became distended and at times sore to pressure. At intervals he had little or no pain, but frequently I was obliged to give an opiate.

Up to the tenth day of his sickness there was but little change in his condition. The stools contained some fresh and some dark colored partly digested blood, the urine was normal, purpuric spots of different sizes began to appear on other parts of his body, and after lasting a few days would disappear gradually, only to give place to another crop either in the same location or in some other part of the body. The urine up to this time contained no albumen blood or other ingredient of any serious importance.

Tenth to twentieth days of sickness. Sleep greatly disturbed because of abdominal pains; body at times had the appearance of a scarlet fever patient. He began passing blood in the urine and had considerable pain over the kidneys. His pulse was 100 and weak, temperature normal or subnormal with rapid loss of flesh and strength. The stools continued to be very foul smelling and contained blood. He had several severe attacks of nose bleeding.

Twentieth to thirtieth day. Patient continued losing strength. At intervals of one-half to several hours he was free from pain, but we were obliged still, especially at nights, to give opiates. He had occasional attacks of haematemesis.

On the thirty-second day of his sickness he became very much weakened and was vomiting blood. His parents thought his end was near. I received a telegram to hurry to him, but by the time I arrived he had rallied somewhat, even yet his condition gave me much concern. Next day I was agreeably surprised to find him improving. The urine cleared, appetite began to return, bloat began to leave the bowels and by the fortieth day he was able to sit up. At this time he acquired a very sore throat which lasted only a few days.

By the forty-seventh day he was able to walk

outdoors for the first time, but yet so weakened and emaciated as scarcely to be known by his friends. He continued to improve rapidly and appears to-day, eight months later, to be in quite good health.

A blood examination made about the thirty-fourth day of his sickness showed haemoglobin 85 per cent. W. B. C. 17,000 and R. B. C. 3,000,000.

The red blood cells although diminished in number, were normal in size and other respects. It seemed rather surprising to find the blood microscopically so little changed.

Calcium chloride, ergot, sulphuric acid, gelatin, adrenalin, salicylates, arsenic and iron so far as I could judge, had no influence whatever over the purpura.

I have not made this report because I considered purpura a rare condition, but because of the peculiarities of this special case. There seemed to be no rheumatism associated with this condition unless the sore throat at the end of the sickness indicated that. The brunt of the trouble fell on the digestive organs. I could discover no apparent cause for the purpura; the patient was stricken suddenly while in apparently excellent health, which rapidly returned after a prolonged and almost fatal sickness. I found his temperature 99 F on one occasion; at all other times it was normal or subnormal. Drugs apparently played no part in his recovery.

Since writing this paper the patient has had another attack of purpura, affecting only his legs. He had hemorrhages under the skin from pin point size to those larger than a silver dollar. There was pain, swelling and a temperature of 100 F. He quit work only one day, and at present time is again almost well. During this attack he had no disturbance with any of the abdominal organs.

O. F. BURROUGHS, Sec'y.

MONROE COUNTY.

The Monroe County Medical Society held its mid-summer meeting at Monroe, July 20, 1905. Charles Lukins, of Toledo, and S. G. Miner, of Detroit, presented papers. After the meeting the Society was entertained with a boat ride on Lake Erie through the courtesy of Commodore Greening.

GEO. F. HEATH, Sec'y.

MONTCALM COUNTY.

The Montcalm County Medical Society held its mid-summer meeting at Edmore, July 13, 1905. F. R. Blanchard, of Lakeview, gave a very interesting report of Petoskey meeting.

W. P. Gawber, of Stanton, presented a paper on "Neuritis."

Abstract—

Neuritis may be acute or chronic, primary or secondary, localized or general (multiple).

Acute neuritis is characterized by anatomical changes in the nerve similar to those accompanying inflammations elsewhere. They affect chiefly the nerve-sheath, which becomes in consequence thickened, compressing the nerve fibres within and producing pain and interference with their functions. The acute form commences with severe pain in the course of the affected nerve, with marked tenderness on pressure. Soon numbness appears in the parts to which it is distributed and the limb becomes weak and may be completely paralyzed. In severe cases the muscles undergo atrophy and exhibit signs of degeneration. There is often an herpetic eruption over the site of the nerve terminals, especially on the body in herpes zoster, but I have observed the eruption on the neck, face, and arm.

Chronic neuritis is accompanied by fatty and atrophic changes, which permanently impair the usefulness of the nerves. The so-called parenchymatous neuritis where it affects the axis-cylinder is really a degenerative process; this is prone to follow neuritis, and is the result of prolonged irritation or pressure from inflammatory products in nerve-sheath. The acute form may become chronic.

Etiology—Local neuritis may be due to—(1) Traumatism—as from blows, wounds, pressure, etc. (2) Exposure to cold, sometimes improperly called "rheumatic." (3) Extension of disease from adjacent parts—as tuberculosis, syphilis and bone disease. (4) Microbic and autogenetic poisons. (5) The neuritis accompanying certain forms of skin eruptions or trophic changes as herpes zoster, though I think this should be classed with that form as being due to exposure to cold.

Multiple neuritis may be due to—(1) Poisons introduced from without, such as alcohol, lead, arsenic, mercurials, coal-gas. (2) Poisons resulting from infectious fevers, as typhoid, typhus, malaria, variola, syphilis, diphtheria, leprosy, beriberi, influenza, septicemia, etc. (3) Cachexias, anemia, carcinoma. (4) Auto-intoxication. (5) Idiopathic. The most common variety of multiple neuritis is that due to alcohol and it is believed that persons leading a sedentary life are more liable than persons actively employed. This may account for the relatively greater frequency of alcoholic neuritis in women, and when we think of the enormous consumption of various patent medicines which are advertised as "nerve tonics,"

"blood purifiers," etc., and which are largely consumed by women, we can not wonder at this state of affairs.

Some stress has been placed upon alcohol as the cause of multiple neuritis in women. Recently there has been a number of cases reported which were due to child-bearing.

"The causes in these cases were due to sepsis and pressure. The symptoms vary widely. The time of its onset may be the latter part of pregnancy, during labor, or at any time for several weeks afterward. The symptoms vary from transient pain similar to rheumatism to a symptom-complex resembling acute ascending paralysis or myelitis. The usual type is intermediate between these extremes. The nerves involved in the milder cases are the median and ulnar, or, if the leg is affected, the sciatic, gluteal and especially the external popliteal causing the presence of foot-drop. In very severe cases every portion of the body is involved. The milder cases are sometimes passed unnoticed. I call to mind one of these cases following difficult labor a number of years ago. This case was due to traumatism from pressure and affected the thigh, leg and hip on one side. Recovery was complete in about six months.

You are familiar with neuritis of the facial nerve, familiarly known as Bell's palsy. The most important question is whether the lesion is central or peripheral. If the symptoms point to a lesion outside of the stylo-mastoid foramen, the prognosis is much better than if the lesion is within. In the case of a young man about twelve years ago, with motor paralysis on right side and no loss of sensation, treatment with galvanism every other day resulted in a complete cure in about two weeks. If the lesion is within the stylo-mastoid foramen and as high as the geniculate body, you will get some impairment of sensation of tongue on that side due to the disturbance of the chorda tympani nerve, and your patient will require longer treatment—perhaps three or four months.

Tic Douloureux at times is one of the most vicious and intractable forms of neuritis, and no doubt you all have at sometime in your practice, found your therapeutic resources exhausted. A painful spasmodic disease of the trigeminus is a competent definition. The causes are many and varied and will include those already mentioned and in addition it may be due to erysipelas, aural disease, carious teeth, uric acid diathesis, or atheroma of the blood-vessels. It is more frequent in women than in men three to one, and the majority of cases occur after the fiftieth year of age.

Intercostal neuritis is one of the most common forms with which we have to deal. This is usu-

ally due to exposure to cold and sometimes preceded by traumatism. If a typical case, it is ushered in with a stinging and burning pain giving a sensation of a red hot wire running under the skin from the middle of the back to median line in front.

Within twenty-four to forty-eight hours there is a vasicular eruption corresponding to line of the pain and we call it herpes zoster, or shingles, herpetic eruption, and may be mistaken for ordinary neuralgia.

Neuritis in general may be mistaken for rheumatism, periostitis and neuralgia. The diagnosis of neuritis is to be based on the limitations of pain and tenderness in the course of the nerve, but in pure neuralgia pressure usually gives relief from pain.

In the treatment of neuritis we will divide it into general and special therapeutics. In general therapeutics our first aim should be directed toward the removal of the cause and the relief of the pain and acute symptoms; after this, measures which hasten regeneration of nerve—and muscle fibres are indicated. Absolute rest of the affected part for a number of days. Heat, especially moist heat—as from steam, poultices, or fomentations—gives great relief from the pain. Sometimes cold in the form of ice gives much relief. In case the opiates are not well borne, the use of a liniment (menthol, 5ij; ess. of gaultheria, 5iv) gives great relief.

In the acute stage Galvanism, three to five milliamperes for ten minutes every day or two relieves pain and allays the inflammation, yet there are times when this treatment aggravates the pain. Massage is also very useful with lanolin as a lubricant. Lanolin is also a soothing application in case there is an herpetic eruption.

After the acute symptoms have subsided and atrophy of muscles at affected site follows, then use massage, Faradic electricity, with strychnine and appropriate general tonics as the best means of restoring lost muscular power. As this affection is essentially a disturbance of the nerves, phosphide of zinc should have a place, and in Kenyon's neuralgic tablet we have this with cannabis indica, strychnine, arsenic and aconitine a very useful combination.

If neuritis is due to rheumatism the salicylates will give relief, while if the case is alcoholic, strychnine and caffeine are the remedies. Syphilitic cases require mercury and the iodides. For obstinate and painful cases of neuritis of the trigeminal nerve, Dana's treatment is useful. While this plan sometimes is not successful, it has been known to promptly cure many cases when everything else had failed. If it is optic neuritis the treatment, as in other types, will depend on the cause. It is often found in anemic persons, in which case give iron, arsenic and strychnine. Other remedies of some value are aconite, gelsemium, colchicum and potassium iodide.

H. L. BOWER,
Secretary.

Miscellaneous.

FORTIETH ANNUAL MEETING OF THE
MICHIGAN STATE MEDICAL SOCIETY,
HELD AT PETOSKEY, JUNE 28, 29 AND
30, 1905.

MINUTES OF THE MEETINGS OF THE
COUNCIL, HELD DURING THE ANNUAL
MEETING OF THE STATE SOCIETY.

June 27.

The Fourth Annual Meeting of the Council of the Michigan State Medical Society was called to order at the New Arlington Hotel, Petoskey, June 27, 1905, by Chairman Connor.

Present—Connor, Bulson, Burr, Felch, Willson, Small, Welsh, McMullen, Haughey, B. D. Harison, President, and A. P. Biddle, Secretary of the State Society.

Absent—Carnes, Landon and Dodge.

The report of the Chairman of the Council to the House of Delegates was submitted to the Council. After thorough discussion and correction, it was adopted as the report of the Council.

By Dr. Burr: That the following resolution be presented to the House of Delegates, in accordance with Chap. IV, Sec. 6, By-Laws:

Resolved, That the House of Delegates approves of the action of the Councilors in bringing County Medical societies into association in district meetings, and recommends that efforts in this direction be continued.

Resolution approved and adopted.

Dr. Willson suggested that as long as the Council has power to organize County Societies it should also have power to organize District Meetings, and that the Constitution should be so amended.

No action taken.

NOMINATIONS FOR RESIDENT HONORARY MEMBERS.

Dr. Harison suggested Dr. Geo. Howell, of Tecumseh, Lenawee County. Supported by Dr. Burr, and carried.

By Dr. Connor: E. H. Van Deusen, of Kalamazoo. Supported by Dr. Haughey, and carried.

By Dr. Felch: Hermann Kiefer, of Detroit. Supported by Dr. Welsh, and carried.

By Dr. Haughey: That the nominations for Resident Honorary Members be closed. Supported and carried.

No names were suggested for non-resident honorary members.

Minutes of last meeting were read and approved.

Blank forms were submitted by the Secretary of the Council to be used by County Secretaries in

making their reports to the General Secretary, and also one to be used by Councilors in making their reports to the Council.

Dr. Haughey recommended that these blanks be submitted to the Secretary-Editor and that he have power to alter them as he may think best. Supported by Dr. Burr and carried.

Sec. Biddle wished information as to how long he should carry members who are in arrears on his books and furnish them with JOURNALS. The order is to drop them after the 1st of March each year, but he has been requested to hold them over until after this meeting.

Dr. McMullen suggested that the General Secretary take the matter up with the County Secretaries, informing them that a certain number were in arrears, and unless something be done they would have to be dropped from the rolls of the Michigan State Medical Society and THE JOURNAL no longer furnished them. Should the County Secretary instruct him to keep them on the mailing list, the county society, as a society, would be responsible for the dues.

By Dr. Haughey: That some one outside of the Council be secured to present to the House of Delegates the following amendment to the By-Laws of the Michigan State Medical Society:

Amendment to Chap. 1, Sec. 1, By-Laws: "Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by having his name presented again for membership."

Referred to Secretary for action.

Council adjourned to meet at 2:00 p. m., June 28, 1905.

June 28, 1905.

Meeting called to order by Chairman Connor at 2:00 p. m.

Present—Connor, Bulson, Burr, Felch, Willson, Small, McMullen and Haughey.

Minutes of Tuesday's meeting read and approved.

Dr. McMullen brought up the name of Dr. Ashton, Traverse City, for Honorary Membership, but it was ruled out of order inasmuch as the report of the Council had already been made to the House of Delegates.

Dr. Haughey asked the opinion of the Council as to the advisability of the second, third and fourth districts holding a joint district meeting at Battle Creek. It was decided that it would best further the interests of all concerned for each district to hold its own district meeting.

Adjourned to meet Wednesday at 2:00 p. m.

June 29, 1905.

The third session of the Council was called to

order June 29, at 2:00 p. m., by Chairman Connor. President Inglis and the new Councilors, Spencer and Rockwell, were present.

(See minutes of Proceedings of House of Delegates, second day, June 29th. 6, Miscellaneous Business, Report of Committee on Nominations, page 443.)

The minutes of the previous meeting were read and approved.

The claim presented to the House of Delegates by the committee to petition the Legislature for an appropriation for the establishment of a properly equipped sanitarium for the treatment of the early stages of tuberculosis was referred officially to the Council, and was fully discussed.

By Dr. Willson: That the claim be disallowed and that a report be made by the Chairman of the Council, or by some one whom he selects, to the House of Delegates as to the reason why the bill is disallowed. Supported and carried.

Chairman appointed Dr. W. T. Dodge, chairman of the Committee on Finance, to make such report.

By Dr. Burr: That the Secretary be instructed to cast the ballot of the Council for Dr. Connor as Chairman for the ensuing year. Supported and carried. Dr. Connor declared unanimously elected.

By Dr. Willson: That the Chairman cast the ballot of the Council for Dr. Haughey as Secretary for the ensuing year. Supported and carried. Dr. Haughey declared unanimously elected.

Dr. Connor asked for extension of time to arrange the appointments of committees.

Council adjourned to meet at call of Chairman and Secretary.

W. H. HAUGHEY,
Secretary of Council.

MINUTES OF THE PROCEEDINGS OF THE HOUSE OF DELEGATES.

President—B. D. Harison, Sault Ste. Marie.
General Secretary—A. P. Biddle, Detroit.

June 28, 8:30 a. m.

1. Called to order by President B. D. Harison, Sault Ste. Marie.

2. Majority of members of House being present, meeting declared open for the transaction of business.

3. Minutes of last annual meeting read and approved.

4. Report of the Council, Leartus Connor, Detroit, Chairman.

Accepted and referred to Business Committee, to be appointed later, to act and to report upon recommendations.

(Published in JOURNAL for September, 1905, p. 451.)

5. Report of Committee on Legislation and Public Policy, W. H. Sawyer, Hillsdale, Chairman.

Accepted and referred to Business Committee.
(Published in JOURNAL for September, 1905, p. 456.)

6. Report of National Legislative Council, A. M. A., Emil Amberg, Detroit, Michigan member.
Accepted and referred to Business Committee.
(Published in JOURNAL for September, 1905, p. 457.)

7. Miscellaneous Business:

a. Nominations for Committee on Nominations were made as follows:

D. E. Robinson, Jackson County, Chairman.

Jos. N. Eldred, Shiawassee County.

J. A. Wessinger, Washtenaw County.

Guy L. Kiefer, Wayne County.

C. T. Southworth, Monroe County.

Moved by C. B. Stockwell (St. Clair County) and supported that the committee be elected as a whole. Carried.

b. Moved by F. W. Robbins (Wayne County) that the President appoint a Business Committee of three. Supported and carried.

Committee:

F. W. Robbins, Wayne County, Chairman.

A. J. Abbott, Calhoun County.

E. B. Strong, Kent County.

c. General Secretary read the proposed amendment to the Constitution:

An amendment to Article V of the Constitution relative to the House of Delegates, which now reads: "The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the Component County Societies, and (2) *ex-officio*, the officers of the Society as defined in this Constitution," by adding after the word "Constitution," "without power to vote." (See Constitution, Art. XIII, Amendments.)

Moved by C. B. Stockwell (St. Clair County) that the amendment be adopted. Supported and carried.

d. General Secretary read the proposed amendment to the By-Laws:

To amend Chap. XIII, Sec. 11, which reads:

"Sec. 11. At the first meeting after January 1st, due notice having been given, each County Society shall elect annually a delegate or delegates to represent it in the House of Delegates of this Society in the proportion of one delegate to each fifty members or major fraction thereof (see By-Laws, Chap. IV, Sec. 1). The Secretary of the

County Society shall immediately send the list of its delegates to the Secretary of this Society."

To read:

"At the annual meeting in the fall, or at the first meeting after January 1st, due notice having been given, each County Society shall elect annually a delegate and an alternate or delegates and alternates to represent it in the House of Delegates of this Society in the proportion of one delegate and one alternate to each fifty members or major fraction thereof. (See By-Laws, Chap. IV, Sec. 1.) The Secretary of the County Society shall immediately send the list of its delegates and alternates to the General Secretary of this Society."

Referred to the Business Committee.

e. A. J. Abbott (Calhoun County), offered the following amendments to the By-Laws:

To amend Chap. I, Sec. 1, by adding: "Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being again elected to membership."

To amend Chap. XIII, Sec. 12, by striking out in line 12 the words "Councilor of his District," and inserting the words "General Secretary."

To amend Chap. VIII, Sec. 7, by inserting in line 9 after the word "make" the words "on blanks furnished by the General Secretary."

Referred to the Business Committee.

f. J. A. Wessinger (Washtenaw County) offered the following amendment to the Constitution:

To amend Art. IX, Sec. 1, to read: "Funds for meeting the expenses of the Society shall be provided by a yearly fee of two dollars for each member, payable on or before the annual meeting to the General Secretary of this Society by the Secretary of his Component County Society, and from the profits of its publications."

According to Art. XIII (Amendments) of the Constitution, the proposed amendment must be sent officially to each Component County Society at least four months before the session at which final action is taken.

Laid over until the next annual meeting.

g. Resolution by A. E. Carrier (Wayne County):

Whereas, It is reported an attempt is to be made to publish a Medical Directory of the United States, under the auspices of the American Medical Association; and,

Whereas, An air of probability attaches to this report, through calls for information being made by Secretaries of State Medical Associations,

which are definitely alleged to be for final use in compiling such a directory; and,

Whereas, Such calls are not being confined to data respecting members of the American Medical Association, but include regulars and irregular alike; and

Whereas, We believe this would be entering the field of commercialism and foreign to the province of the American Medical Association;

Resolved, That this, the Michigan State Medical Society, discountenances the publication by the American Medical Association of any work containing any other names than those of its members.

Resolved, That a copy of these resolutions be forwarded to the Secretary of the American Medical Association, and that our delegates be requested to express to the convention at Portland the disapproval of the members of this Society of any proposed directory not confined strictly to the membership.

Referred to Business Committee.

W. H. Sawyer (Hillsdale County), after referring to the work of the Red Cross Society, asked that it be given recognition by the Society.

Referred to Business Committee.

F. W. Robbins (Wayne County) moved that, to meet with the wishes of the Council in the expediting of its own work, the report of the Committee on Nominations be received under the first order of Miscellaneous Business on the second day. Supported and carried.

Adjourned.

SECOND DAY, THURSDAY, JUNE 29, 9 a. m.

1. Meeting called to order by President Harrison.

2. Minutes of yesterday's meeting read and approved.

3. Unfinished Business:

C. B. Stockwell (St. Clair County) moved that the amendment to the By-Laws, Chap. XIII, Sec. 11, be adopted. Supported and carried. (See *d* of yesterday's meeting.)

4. Report of Committee to petition the Legislature for an appropriation for the establishment of a properly equipped sanitarium for the treatment of the early stages of tuberculosis. Henry J. Hartz, Detroit, Chairman.

Report accepted, and the matter of expense referred to Council, according to By-Laws, without debate.

After considerable discussion as to whom

thanks for the measure should be extended, J. A. Wessinger (Washtenaw County) moved that the report be referred back to the committee, to report at the meeting of the following day. Supported and carried.

Committee discharged.

(Published in JOURNAL for September, 1905, p. 458.)

5. Report of Committee to encourage the systematic examination of eyes and ears of school children throughout the state. W. R. Parker, Detroit, Chairman.

Report accepted and committee continued, to be enlarged at the discretion of the Chairman.

(Published in JOURNAL for September, 1905, p. 459.)

6. Miscellaneous Business:

a. Report of Committee on Nominations, D. E. Robinson (Jackson County), Chairman:

Your Committee on Nominations respectfully submits the following recommendations:

First Vice-President—Arthur M. Huene, Owosso.

Second Vice-President—A. W. Hornbogen, Marquette.

Third Vice-President—Florence Huson, Detroit.

Fourth Vice-President—N. S. McDonald, Hancock.

Delegates to the A. M. A. for two years:

H. O. Walker, Detroit; alternate for 1905, Eugene Smith, Detroit.

V. C. Vaughan, Ann Arbor; alternate for 1905, H. B. Garner, Traverse City.

As alternate in the place of C. B. Stockwell, who cannot attend the Portland meeting, F. W. Robbins, Detroit.

Councilors for six years:

Fourth Councilor District—A. H. Rockwell, Kalamazoo.

Fifth Councilor District—R. H. Spencer, Grand Rapids.

Seventh Councilor District—Mortimer Willson, Port Huron (re-elected).

Tenth Councilor District—C. H. Baker, Bay City.

Place of meeting for 1906, Jackson. Time of meeting to be fixed by the General Secretary, after consultation with the varied interests.

Moved by C. B. Stockwell (St. Clair County) that the report be accepted and adopted. Supported and carried.

b. Report of the Business Committee, F. W. Robbins (Wayne County), Chairman:

a¹. Relative to the President's suggestion in the matter of the patent medicine evil, the Commit-

tee recommends that a committee of three be appointed to consider the question and report at the 1906 meeting.

Motion that such a committee be appointed, supported and carried.

b¹. In accordance with the request of the Historical Society of Michigan, and at the suggestion of President Harison, the Committee recommends that a committee of five be appointed to procure and to convey to said Historical Society as complete and correct a history as possible of some of the pioneer practitioners of Michigan.

Motion that the recommendation be adopted, supported and carried.

c¹. The Michigan State Medical Society desires to offer hearty and sympathetic endorsement of the work and principles of the Michigan State Branch of the National Red Cross Society.

Motion that the resolution be adopted, supported and carried.

d¹. *Whereas*, No physician has been chosen among the fifty names to be placed in the Hall of Fame; and,

Whereas, The nominations for the twenty names remaining in 1900 are to be closed July 1, 1905; and,

Whereas, A few years since the medical profession erected a monument on the Island of Mackinac in honor of its most distinguished physiologist and physician, Dr. William Beaumont; and,

Whereas, In an elaborate memorial address delivered at St. Louis, Mo., in memory of Beaumont, Dr. Wm. Osler, Professor of Medicine at Johns Hopkins Medical School, proclaimed Beaumont the foremost of American physiologists—indeed, of all physiologists;

Resolved, That the Michigan State Medical Society respectfully nominates as its candidate for the Hall of Fame Dr. William Beaumont, who, during his residence as Army Surgeon at the Island of Mackinac, made observations on Alexis St. Martin that revolutionized our knowledge of the physiology of digestion, and furnished a rational basis for managing digestive disorders of inestimable service to humanity.

Motion that the resolution be adopted, supported and carried.

Resolved, That Dr. R. W. Erwin, of Bay City, be appointed a committee of one to present the foregoing resolutions to the Hall of Fame Commissioners in New York City.

Motion that the resolution be adopted, supported and carried.

e¹. *Whereas*, The Council calls attention to a

growing sentiment of loyalty among members of the Michigan State Medical Society in attending branch meetings; greater care in making contributions of material for the meetings; in fewer harsh criticisms of members; in sacrificing more to help THE JOURNAL to advertisements, subscribers, papers, etc.; in deeper resentment of practices which discredit organization, and stronger conviction that each member should unite in all that promotes its virility;

Whereas, Such a sense of loyalty proves the solidity of our organization and foreshadows largest possible achievement;

Resolved, The loyal be requested to seek out the indifferent, and by combined instruction, persuasion and association, win them to devoted service of the Michigan State Medical Society.

Motion that the resolution be adopted, supported and carried.

f¹. *Whereas*, The Council reports to this body that, under our present organization, the exactions of officers are vastly increased; that if these exactions be not met fully and promptly the Society suffers and the officer is discredited;

Whereas, This fact is sometimes overlooked, to the loss of the neglected branch and weakening of the State Society;

Resolved, That the members of each branch, as well as the State Society, neglect no study in ascertaining who of their number would make the best officers, and neglect no effort in persuading fellow-members of the correctness of their studies.

Resolved, That hereafter we regard our officers as the managers of our business, a business complicated, difficult to conduct, and elect them because we believe they will spare no effort to render our common business prosperous in the highest degree.

Motion that the resolution be adopted, supported and carried.

g¹. *Whereas*, The council has directed attention to certain sociological diseases stunting the normal growth of the State Society; and,

Whereas, It specifically mentions the following, viz., newspaper advertising, contract practice at rates far below the rates prevailing amongst private practitioners in the same area, treatment of the well-to-do at cut-rate figures, buying cases in secret, etc.; and,

Whereas, The extermination of these infections of the State Society is much to be desired; therefore, be it

Resolved, That the Michigan State Medical Society urges upon its various branches the enactment of such legislation as shall accomplish this end.

Motion that the resolution be adopted, supported and carried.

h¹. To meet the suggestions of the Council that authority be vested in some committee to speak or to act for the Michigan State Medical Society in emergencies, the Committee offers the following, to be known as Chap. X of the By-Laws, the succeeding chapters to be renumbered to correspond:

Chap. X, By-Laws: When prompt speech and action are imperative with reference to matters concerning which the views of the Society are well known, authority to speak and to act for it is vested by the Michigan State Medical Society in its President and Council.

Laid over for one day, in accordance with Chap. XIV, Amendments.

i¹. *Resolved*, That the House of Delegates approves of the action of the Councilors in bringing the County Medical Societies into association in district meetings, and recommends that effort in this direction be continued.

Motion that the resolution be adopted, supported and carried.

k¹. Your Committee recommends the amendment to Chap. XIII, Sec. 12, By-Laws, by striking out the words "Councilor of his District" in line 12, and supplying "General Secretary."

Your Committee also recommends the amendment to Chap. VIII, Sec. 7, By-Laws, by inserting in line 9, after the word "make," the words "on blanks furnished by the General Secretary."

Motion that the recommendations be adopted, supported and carried.

Your Committee recommends the amendment to Chap. 1, Sec. 1, By-Laws, to read: "Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being re-elected to membership."

Motion that the recommendation be adopted, supported and carried.

Your Committee recommends that the General Secretary of this Society communicate to the branches of this Society requesting them to make their fiscal year agree with the fiscal year of the State Society; that is, that the dues of branch Societies be collected in advance.

Motion that the recommendation be adopted, supported and carried.

l¹. Your Committee recommends the adoption of the following resolution:

Whereas, It is reported an attempt is to be made to publish a Medical Directory of the United States, under the auspices of the American Medical Association; and,

Whereas, An air of probability attaches to this report, through calls for information being made by Secretaries of State Medical Associations, which are definitely alleged to be for final use in compiling such a directory; and,

Whereas, Such calls are not being confined to data respecting members of the American Medical Association, but include regulars and irregulars alike; and,

Whereas, We believe this would be entering the field of commercialism and foreign to the province of the American Medical Association;

Resolved, That this, the Michigan State Medical Society, discountenances the publication by the American Medical Association of any work containing any other names than those of its members.

Resolved, That a copy of these resolutions be forwarded to the Secretary of the American Medical Association, and that our delegates be requested to express to the convention at Portland the disapproval of the members of this Society of any proposed directory not confined strictly to the membership.

Motion that the resolutions be adopted, supported and carried.

J. A. Wessinger (Washtenaw County), moved that the report as a whole be adopted. Supported and carried.

Adjourned.

THIRD DAY, FRIDAY, JUNE 30TH,

9 a. m.

1. Called to order by President Harison.

2. Minutes of yesterday's meeting read and approved.

3. Unfinished business.

a. Motion by D. E. Robinson (Jackson County), that the amendment to be known as Chap. X, By-Laws, which was offered by the Business Committee, be adopted. Supported and carried.

b. Motion by A. E. Carrier (Wayne County), that the report of H. J. Hartz, Detroit, Chairman of the Special Committee to petition the Legislature for an appropriation for the establishment of a properly equipped sanitarium for the treatment of the early stages of tuberculosis, be accepted. Supported and carried.

C. W. Hitchcock (Wayne County), offered the following amendment to the report:

Whereas, The bill to provide a State institution for the treatment of tuberculosis in its early stages has become a law; therefore,

Resolved, That the Michigan State Medical Society deems the enactment of this bill into law an occasion for congratulation to Gov. F. M.

Warner, the legislators of 1905, the general State press for its intelligent support, our own Committee for its untiring efforts, and a host of earnest, unselfish workers both in and out of the profession; and be it further

Resolved, That the Secretary of this Society be requested to express to Gov. Warner and the sponsors of the bill in the Legislature our appreciation of their intelligent official interest in this measure, which is so full of promise of good to the citizens of the State of Michigan, having for its object the cure and eradication of tuberculosis.

Motion that the resolutions be adopted, supported and carried.

c. W. H. Haughey, Secretary of the Council, presented the following report from the Council, the action of which is final:

To the House of Delegates:

The claim presented by the Committee upon procuring the establishment of a hospital for the treatment of tuberculosis, which was referred to the Council, has been disallowed by that body, and the Chairman of the Finance Committee has been instructed to present to the House the reasons for that action, as follows:

1st. The Constitution provides that legislation causing the expenditure of money must be approved by the Council before it becomes operative. The question of the appointment of this Committee was never referred to the Council, and it is presumed that the House of Delegates did not consider that in appointing this Committee any expense to the Society was authorized.

2nd. Other legislative committees have been appointed by the Society, many of whom have devoted much time and money to their work, and in no instance has the Society reimbursed such committees for such expenditures.

3rd. Although the By-Laws of this Society provide that the officers and Councilors shall be reimbursed for their actual expenses while transacting the business of the Society at other than the annual meetings, the finances of the Society have been in such condition that each officer and Councilor has donated to the Society the amount of such expenses, amounting in each case to at least \$25 per year.

It is therefore the unanimous opinion of the Council that all members of committees serving the Society shall do so upon the same basis as the Councilors have applied to themselves. The finances of the Society will not bear extraordinary demands of this character.

Respectfully submitted,

W. T. DODGE,

Chairman Finance Committee.

Report accepted.

4. Report of the Committee on Vital Statistics, H. B. Baker, Lansing, Chairman.

A. E. Carrier (Wayne County) moved that the report with recommendations be accepted and adopted. Supported and carried.

(Published in JOURNAL for September, 1905, p. 460.)

5. Miscellaneous Business:

a. The General Secretary offered the following amendment to the Constitution:

To amend Art. VIII, Sec. 1, which reads:

"The officers of this Society shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and twelve Councilors," by inserting the word "General" before "Secretary," and adding "an Assistant Secretary," to read a "General Secretary, an Assistant Secretary."

(See Art. XIII, Amendments.)

Proposed amendment must lie over for a year and be sent officially to each Component County Society at least four months before the session at which final action is taken.

Adjourned.

A. P. BIDDLE,
General Secretary.

MINUTES OF THE PROCEEDINGS OF THE SOCIETY IN GENERAL MEETING.

President—B. D. Harison, Sault Ste. Marie.
General Secretary—A. P. Biddle, Detroit.

FIRST DAY, WEDNESDAY, JUNE 28TH.
10:30 a. m.

1. Called to order by President Harison.

2. Prayer by the Rev. F. R. Godolphin.

3. Address of welcome by the Hon. Geo. E. Reyecraft, mayor.

4. Report of Committee on Arrangements. John J. Reyecraft, Chairman.

5. Report from the House of Delegates: A. P. Biddle, General Secretary.

(The JOURNAL, September, 1905, page 441, minutes of the proceedings of same.)

6. Report of Michigan member of Committee on Transportation, A. M. A., F. W. Robbins, Detroit, Chairman.

7. Address of the President: B. D. Harison, Sault Ste. Marie.

"The Past and Present Status of the Medical Profession in Michigan."

(Published in THE JOURNAL, August, 1905, p. 149.)

Referred to Business Committee of the House of Delegates and the thanks of the Society extended to President Harison for his able address.

8. Miscellaneous Business.

a) Nominations for President.

H. W. Longyear (Detroit), presented the name of David Inglis of Detroit.

W. J. Herdman (Ann Arbor), Eugene Smith (Detroit), W. H. Sawyer (Hillsdale), and C. B. Burr (Flint), and others supported the same.

A. W. Alvord (Battle Creek), presented the name of C. B. Stockwell, of Port Huron. Supported by E. T. Abrams, of Dollar Bay.

Dr. Stockwell declined to permit the use of his name.

C. B. Burr (Flint), moved that the By-Laws be suspended and the Secretary be instructed to cast the ballot of the Society for Dr. Inglis. Motion supported.

Several members questioned the advisability of closing the vote in this way, as it would shut out members who may arrive later from voting for the President.

C. B. Burr then moved that the motion to elect the President by acclamation be reconsidered, and that he be elected by ballot, in the regular way.

Supported and carried.

E. T. Abrams (Dollar Bay) moved that the nominations be closed. Supported and carried.

b) H. O. Walker, Detroit, presented the following resolutions: *Whereas*, Last year the Michigan State Medical Society urged the American Medical Association to provide means for determining the exact composition of medicinal supplies of proprietary substances, in general use, and for publishing the same;

Whereas, Said A. M. A. has established a "Council of Chemistry and Pharmacy" for this purpose, composed of persons both competent and trustworthy;

Whereas, The results already published, foreshadow the great importance of the work, as indicated by the approval of friends, and howls of those fattening on the ways "that are dark" in pharmacy;

Resolved, That the thanks of the Michigan State Medical Society be extended to the American Medical Association for putting into practical operation its request, at so early a date, and in so admirable a manner.

Resolved, That we urge the Council to push its studies of medicines of unknown composition, as rapidly as possible, and publish the same, that the individual doctor may better know his tools, that medical journals may have a correct standard in regulating their advertising pages, that honest, open pharmacy may be encouraged, and that outsiders may be attracted to organizations which thus are trying to help them in their work.

Resolution supported and adopted.

c) Wm. F. Breakey, (Ann Arbor), offered the following memorial, in behalf of the Washtenaw County Medical Society:

The Michigan State Medical Society wishes to put on record recognition of its loss in the death of Dr. Albert B. Prescott, L. L. D., Professor of Organic Chemistry, etc., and Dean of the Department of Pharmacy of the U. of M. He became a member of this Society in 1883 and his name was placed on the honorary list in 1904. Dr. Prescott was so well known to members of the Society that nothing we may say can add or detract from his deserved fame as a scientific scholar, an authority in the departments of medical and pharmaceutical science, and a contributor to the work in which his professional life was so successfully spent.

The profession of medicine, not only of Michigan but of the whole country, owes a great debt of appreciation and gratitude to Dr. Prescott for his authentic contributions to medical science and for the high plane of scientific, professional and moral standards of his life.

In particular the profession owes much to Dr. Prescott for his labors in exposing the worthlessness of many patent and proprietary medicines by chemical and pharmaceutical analysis. This work was undertaken years ago at the request of the Washtenaw County Medical Society.

His kindly, genial face, his sympathetic nature, his happy combination of scholar and gentleman; learned without pedantry, amiable without ostentation; his interest in the good of medical study and practice, endeared him alike to students and practitioners of medicine and will serve to keep his memory green, as his fame is lasting.

This Society honors itself in recognizing and recording its appreciation of the worth and character of Dr. Prescott.

H. O. Walker, (Detroit), moved that the resolution be adopted by a rising vote. Adopted unanimously.

d) C. B. Burr, (Flint), presented a notice in memory of Dr. Wm. M. Edwards of Kalamazoo, and moved that the same be printed in THE JOURNAL and that the General Secretary of the Society be requested to send Mrs. Edwards expressions of condolence and sympathy on the part of the Society. Supported by W. J. Herdman, Ann Arbor. and carried. (Published in THE JOURNAL for September, 1905, p. 461.)

e) C. B. Stockwell, (Port Huron), presented the following:

The Michigan Congregational Association on May 19, 1904, at Detroit, Mich., adopted the following resolutions without a dissenting vote:

"The Michigan Congregational Association here-

by expresses its approval of the current protest against fraudulent and immoral advertising in religious papers and urges the Sunday School and Publishing Society and all other publishers of Congregational periodicals to cease the indorsement of all quack, liquor and drug-laden medicines and all the swindling projects with which unscrupulous men seek to defraud the innocent public."

A motion that the matter be referred to the Business Committee of the House of Delegates was supported and carried.

Adjourned.

8 P. M.

SCIENTIFIC EXHIBITS.

Lantern slide demonstrations on "Tissue-bits in the Stomach-washing and Their Aid to Diagnosis."—A. S. Warthin and D. M. Cowie, Ann Arbor.

X-ray slides of "Diseases of the Chest."—P. M. Hickey, Detroit.

SECOND DAY, THURSDAY, JUNE 29, 10:30 a. m.

1. Called to order by President Harison.
2. Minutes of previous meeting read and approved.
3. Report from the House of Delegates, A. P. Biddle, General Secretary, Detroit. (See minutes of proceedings of same, this issue of JOURNAL, page 443.)

REPORT OF COMMITTEES.

4. a) Report of Committee to secure data regarding the Prevalence of Venereal Diseases in Michigan.—A. E. Carrier, Detroit, Chairman.

"At the time this committee was appointed, two years ago, it was hoped that some valuable statistics might be obtained from the profession throughout the State regarding the prevalence of venereal diseases.

In an effort to secure such statistics a blank form was published in THE JOURNAL of the Michigan State Medical Society giving opportunity for a tabulation of the cases of gonorrhœa, chancroid and syphilis occurring in the practice of the members of this Society. In addition to the simple enumeration of cases, information was requested regarding sources of infection, and individual opinions were asked concerning prophylactic measures to be adopted. The number of replies received were discouragingly small, but served as a corroboration of what was generally known that these disorders were widely prevalent. In order to acquire accurate knowledge a much more vigorous and systematic canvass is neces-

sary and the active co-operation of the profession at large is imperative.

If personal letters with return postal cards were sent out much larger returns would result. This plan would necessitate a stenographer, postage and stationery, entailing an expense of possibly a hundred dollars. With such a sum of money available to cover the actual outlay, much more comprehensive information could be looked for. Failing this, a much larger committee with a member from every county should be appointed. These county members should be expected to gather by personal solicitation or otherwise from every physician (be he a member of this Society or not), all pertinent data and report in full (every three to six months at least) to the chairman of this Committee who would then tabulate and systematize these county reports."

Report accepted and committee discharged.

b) Report of Committee, appointed by the Section on General Medicine on Wednesday, June 28th, to which was referred the subject matter brought to the attention of the Section by the paper of A. E. Carrier, Detroit, on "Venereal Prophylaxis:"

VENEREAL PROPHYLAXIS.

"Your committee to whom was referred the important subject brought to the attention of this Society by Dr. A. E. Carrier, of Detroit, respectfully submits:

1. That they but express the profound conviction of the entire medical profession of to-day in declaring that syphilis and gonorrhœa are the most prolific causes of disease, deformity, and death, of any whose ravages afflict mankind.
2. That these are unquestionably "dangerous and communicable" diseases and that they should be dealt with as such from every point of attack—educational, social and legal—from which their propagation may be checked and their extermination be effected.

3. That since the first step in the removal of a threatening danger or any existing evil is to have it clearly defined and apprehended by those who are its victims, it becomes our imperative duty as guardians of the public health to boldly and effectively make known our convictions on this vital matter.

With this end in view and in the simple discharge of a duty which devolves upon us by reason of the service to humanity we have assumed, we would recommend:

a) That a standing committee of this State Medical Society be created at this meeting, consisting of not less than three members, who shall henceforth act as the exponent and executive arm

of this Society in dealing with this important matter, and who shall be given authority by this Society, to use all justifiable and honorable means for conducting an active and vigorous campaign against the spread of venereal diseases.

b) That this committee be instructed by this Society to confer with the State Board of Health, and recommend to that board that it begin the education of the people to the fact that gonorrhoea and syphilis are dangerous, communicable diseases, among the most important of those that cause sickness, deformity and death, and that as such they are properly covered by the law of this State which requires that their "modes of propagation shall be taught in the public schools in such manner as will be discrete and expedient."

c) That this committee be further instructed by this Society to co-operate with the State Board of Health, the local Boards of Health, health officers and the County Medical Societies throughout the State, in the way of furnishing statistics, information and literature that will aid them in getting a correct knowledge of the nature and effects of these diseases before the minds of our citizens, and that to this end they utilize all known channels and create such other as they may think necessary for the effective propagation of such knowledge and information—the pulpits, the press, superintendents of public instruction, Boards of Education, teachers of youth, parents and societies such as are now organized or may be organized "for the study and prevention of venereal diseases, or for the promotion of social purity."

d) That this committee be authorized to receive voluntary contributions to aid them in this work and be granted the privilege of expending, at their discretion, any funds that may be placed in their hands for this purpose, provided they keep a strict account of such receipts and expenditures, and make reports of the same and the progress of their work to this Society annually."

WM. J. HERDMAN, Chairman.

HENRY B. BAKER.

ALBERT E. CARRIER.

C. B. BURR.

H. W. LONGYEAR.

GUY L. KIEFER.

Report accepted, and on motion of H. O. Walker, Detroit, duly supported, a committee of three was appointed, consisting of **A. E. Carrier, Detroit, A. P. Biddle, Detroit, and W. J. Herdman, Ann Arbor.**

5. Oration on Surgery, F. B. Walker, Detroit; "Surgery and Human Welfare."

(Published in *THE JOURNAL*, in August, 1905, p. 368.)

6-a) Oration on General Medicine, Collins H. Johnston, Grand Rapids; "The Administrative Control of Tuberculosis."

(To be published in *THE JOURNAL*).

b.) C. B. Burr moved that a vote of thanks be extended the orators on medicine and surgery for their excellent addresses. Supported and carried.

7. Miscellaneous Business:

a) Report of committee to co-operate with a committee of the State Bar Association for the purpose of securing legislation concerning expert testimony; J. B. Griswold, Grand Rapids, Chairman.

To the Michigan State Medical Society:

Your committee appointed to co-operate with a committee of the State Bar Association for the purpose of securing legislation concerning expert testimony respectfully report as follows:

A meeting of the committee was called early in the year, but at a time when it was not convenient to a majority of the members, and in consequence no formal meeting has been held.

A bill was drawn by Judge Willis B. Perkins, chairman of the committee of the State Bar Association, that was submitted to the several members of your committee.

The act met with the approval of the Bar Association, but was not entirely satisfactory to the members of your committee. No opposition was made to it, however, and it passed both houses of the Legislature. It has received the Governor's signature and is now law.

A copy of the bill is attached hereto.

Respectfully submitted,

J. B. GRISWOLD,

DAVID INGLIS,

C. B. BURR,

Committee.

A BILL

To Regulate the Employment of Expert Witnesses.

The People of the State of Michigan enact:

Section 1. No expert witness shall be paid or receive, as compensation in any given case for his services as such, a sum in excess of the ordinary witness fees provided by law, unless the court before whom such witness has appeared awards a larger sum; and any such witness who shall directly or indirectly receive a larger amount than such award, and any person who shall pay such witness a larger sum than such award, shall be guilty of a misdemeanor, and be liable to a fine not exceeding one thousand dollars, and may further be punished for contempt.

Section 2. No more than three experts shall be allowed to testify on either side as to the same issue in any given case, except in criminal prosecution for homicide.

Section 3. In criminal cases for homicide

where the issues involve expert knowledge or opinion, the court shall appoint one or more suitable and disinterested persons, not exceeding three, to investigate such issues and testify at the trial; and the compensation of such person or persons shall be fixed by the court and paid by the county where indictment was found, and the fact that such witness or witnesses have been so appointed shall be made known to the jury. This provision shall not preclude either prosecution or defense from using other expert witnesses at the trial.

Section 4. This act shall not be applicable to witnesses testifying to the established facts or deductions of science, nor to any other specific facts, but only to witnesses testifying to matters of opinion.

Report accepted and committee discharged.

b) F. W. Robbins (Wayne County), Chairman of the Business Committee, made the following report:

Regarding the suggestion of the permanent place of meeting, the Business Committee does not care to make any recommendations, but feel that the matter should come before the Society for discussion; therefore, it moves that after 1906 all annual meetings of the Michigan State Medical Society be held in Detroit.

C. B. Burr (Flint) moved that the report of the committee be made a special order of business for the Friday morning session. Supported and carried.

c) J. H. Carstens (Detroit) offered the following:

Resolved, By the Michigan State Medical Society, that the trustees of the new Tuberculosis Hospital be requested to locate the same near Ann Arbor, as this will enable the faculty of the Medical Department of the University of Michigan to assist the staff of the hospital in their great work.

F. W. Robbins (Detroit) moved that this matter also be made a special order of business for Friday morning. Supported and carried.

Adjourned.

THIRD DAY, FRIDAY, JUNE 30,

10:30 a. m.

1. Called to order by President Harison.
2. Minutes of previous meeting read and approved.
3. Report from the House of Delegates, A. P. Biddle, General Secretary. (See minutes of same, page 445.)

4. Unfinished Business:

a) W. H. Haughey (Battle Creek) moved that the resolution regarding the establishment of a permanent place of meeting for the State Medical Society be laid on the table. Supported and carried.

b) Collins H. Johnston (Grand Rapids) moved that the resolution requesting the trustees of the State sanitarium for the treatment of the early stages of tuberculosis to locate the same near Ann Arbor be laid on the table. Supported and carried.

5. Oration on Obstetrics and Gynecology, Richard R. Smith, Grand Rapids; "Is Gynecology to Remain a Separate Specialty?"

(Published in THE JOURNAL for August, 1905, p. 374.)

Vote of thanks extended to Dr. Smith for his admirable address.

6. Miscellaneous Business:

a) D. E. Robinson (Jackson County), Chairman of the Committee on Nominations, announced the unanimous election of Dr. David Inglis, Detroit, as President for the ensuing year.

Introduction and remarks of the President-elect.

b) On motion of C. B. Burr (Flint) a vote of thanks was extended to the Emmet County Medical Society for its cordial reception and hospitality to the visiting members; also to the retiring President and to the General Secretary for their part in the success of the meeting.

Adjourned.

A. P. BIDDLE,
General Secretary.

OFFICERS OF SECTIONS FOR 1905-'06.

SECTION ON GENERAL MEDICINE.

Chairman—H. OSTRANDER, Kalamazoo.

Secretary for Two Years—R. S. ROWLAND, Detroit.

Orator—B. H. McMULLEN, Cadillac.

SECTION ON SURGERY, OPHTHALMOLOGY AND OTOTOLOGY
Chairman—E. C. TAYLOR, Jackson.

Secretary for Two Years—F. J. LEE, Grand Rapids.

Orator—A. W. CRANE, Kalamazoo.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Chairman—FLORENCE HUSON, Detroit.

Secretary for Two Years—B. R. SCHENCK, Detroit.

Orator—E. T. ABRAMS, Dollar Bay.

A. P. BIDDLE,
General Secretary.

REPORT OF THE COUNCIL TO HOUSE
OF DELEGATES, JUNE 28, 1905.

LEARTUS CONNOR, Detroit,
Chairman.

In accord with our By-Laws, your Council offers its report upon the Society's Finances, Judicial Interests, Publications, and Branches, with suggestions.

FINANCE.

The following statement covers all transactions from Dec. 31, 1903, to Dec. 31, 1904:

RECEIPTS.

Cash on hand Dec. 31, 1903.....	\$ 492.71
Dues from members.....	3,257.50
Advertisements (gross)	2,025.92
Subscriptions to State JOURNAL.....	22.90
Blanks for branch Societies.....	5.78
Refund from Mich. Pass. Association....	6.00
Refund from John Bornman & Son	1.50
Total	\$5,842.31

DISBURSEMENTS.

Printing and mailing of JOURNALS.....	\$3,353.30
State Society expenses	548.12
Commission on advertisements	405.17
Secretary's salary (18 months)	450.00
Editor's salary (18 months)	450.00
Councilor's expenses	18.32
Total	5,224.91
Balance Dec. 31, 1904.....	617.40
Total	\$5,842.31

FINANCE.

Thus all bills of the Society have been promptly paid, and a small balance remains in the treasury. At its January meeting the Council discontinued the section stenographic reports, because practically worthless, and very expensive.

There are four items in this expense account, viz.:

- 1.—The pay of the stenographer (in two days meeting this was \$200 yearly, but with the three days meetings it was raised to \$300).
- 2.—Cost of typesetting galley proofs.
- 3.—Cost of setting corrections of galley proof—often greater than the original.
- 4.—Postage and stationery.

There are two reasons for this large expense and unsatisfactory results

First.—Most available stenographers are laymen, unable to grasp the speaker's ideas, so they record "words." As the speaker wants his ideas

in print, he re-writes his copy—a costly proposition.

Second.—Most speakers use a different style than when writing, and so reject their spoken language (no matter how well reported) and substitute written.

The Council suggests that all desiring their discussions printed in connection with a paper write out said discussion and hand it to the section secretary. He will attach it to the paper in proper order.

At the January meeting the Council voted the General Secretary's salary to be increased to \$850 per year, this to cover the entire expense of the General Secretary-Editor's office.

Although the By-Laws allow the Councilors twenty-five dollars each for expenses in attending meetings of their Branches, and doing other Councilor work, few have ever drawn the same, and last year but one. Thus they have yearly voluntarily contributed nearly three hundred dollars to the Society funds. Besides they have contributed the actual cost of transportation and board during long journees plus the loss of business during absence from home—all that they might better promote the growth of the Michigan State Medical Society. As your Councilors are all busy men, you can estimate a little of their financial contribution to our common enterprise.

The money saved by not paying for either Councilors' or stenographers' expenses has been expended in meeting Society expenses, including the publication of THE JOURNAL.

The Council suggests that as a part of his New Year Day festivities, each member read Article IX, Sec. 1 of the Constitution and Chapter X, By-Laws, Michigan State Medical Society. This will remind him that his dues to Branch and State Society should then be paid. It is hoped the reminder will enable him to write out and send his Branch Secretary a check for the combined amount. He in turn will forward it to State Society Secretary, and the Council will have the funds needed to conduct the Society's business.

Should he fail to do this, the Council suggests that the Branch Treasurer send each member a statement of his account. If this be overlooked, that the Treasurer see in person or by proxy, such as have been too busy to settle their Branch and State Society accounts. It is believed, that some such method would insure the prompt payment of all dues.

JUDICIAL INTERESTS.

It gives the Council pleasure to report that no case has been presented for its judicial consideration during the past year. An atmosphere of

peace and good-will has enveloped the profession of Michigan.

Such friction as arose was removed either by conference of the interested parties, or with officers of Branches.

PUBLICATION.

THE JOURNAL MICHIGAN STATE MEDICAL SOCIETY has been mailed to members, subscribers, etc., regularly, the first of every month; on its editing has been expended an increased amount of the best obtainable work; the material from the annual meeting has been published as rapidly as the conditions admitted; both this and the work of the Branches were placed in such form as to do most credit to writer and reporters.

This could be improved if each Secretary secured better papers from his fellows, condensed with more care the discussions and papers and forwarded the same promptly to the Editor.

Financial limitations have met the Council at every turn. Fortunately it has secured an Editorial and Business Management, honest, efficient and intelligent beyond the average, at a meagre salary.

It desires to recognize material aid from outside the staff, in securing advertisements, good papers, news items, editorials, book notices and condensed articles of general interest.

The regular edition of THE JOURNAL has averaged2,200
 Mailed to members or subscribers.....1,773
 Mailed advertisers 62
 Mailed libraries 10
 Mailed exchanges 55
 Mailed medical publishers..... 12
 Given editors of medical progress..... 30
 Complimentary 5
 Reserve copies the rest of the edition.

MEMBERSHIP.

From a considerable number of causes our membership varies greatly, as from additions of new graduates, accession from other Branches or States, deaths, removals, change of business or retiring on account of health, infirmity, or excessive riches.

Much confusion arose from change of the fiscal year so as to begin Jan 1st, and end Dec. 31st. In Wayne this was done by asking members to pay the last quarter of 1904 and all of 1905.

Dec. 31st, 1904, membership.....1,773
 July 1st, 1905, membership.....1,632

Thus the dues of 146 must be paid in ere Dec. 31st, to reach the standard of last year. It is believed that the Branches will not only do this, but add many more from new members.

COUNTY OR BRANCH MEDICAL SOCIETIES.

The eighty-three counties of Michigan are now organized into sixty Branches—each representing from one to six.

Muskegon was chartered Sept. 3d, 1904; Tri-County (Wexford, Kalkaska, and Missaukee), chartered Dec. 15th, 1904; Presque Isle chartered March 2nd, 1905.

Each issue of THE JOURNAL gives the names of these Branches, with their constituent counties, their dates of meeting, name and address of both President and Secretary—so making easy communication with any officer, or attendance at a meeting.

Some counties have enrolled nearly all eligible to membership—others are far in the rear. The completion of enrollment is a standing problem with Branch Officers and Councilors. Methods effective in one Branch fail in others, so diversified are the situations.

The growing force of the following habits is encouraging.

First.—Those making nominations of life insurance examiners, or other positions calling for expert knowledge and honest work, more frequently select from members of Branches. There is a feeling that, other things being equal, a member of the State Society is the better man.

Second.—For the same reason, patients moving to another town, or seeking special medical or surgical service, are commended to fellow members.

The general prevalence of these two habits, and their wide dissemination, would powerfully attract to membership in the Branches; but we shall reach our limit only when each member assumes the task of persuading his friends to join his Branch—surely none will neglect this personal contribution to the State Organization.

It sometimes happens that in carrying out instructions, committees of the State Society need the co-operation of the profession in the area of a Branch or Branches. The Council suggests that such committees utilize to the uttermost our Branches, that they may be strengthened, and achieve greater confidence in their ability, and so rendered more attractive to outsiders.

Even when the object calls for the co-operation of the laity, the Branch should be more effective than any new organization.

The Branch is the life of the stem, the key to the power of the State Society—all officers and committees of the stem should have a care that every activity promote its vigorous growth.

DISTRICT MEDICAL SOCIETIES.

By-Laws, Chapter IV, Sec. 6, provides that the

House of Delegates may organize a District Medical Society, to meet midway between the annual sessions of the State Society, when the best interests of the profession and Society may be promoted thereby. Members of the chartered County Societies and no others shall be members of such District Societies.

Thus it was intended to provide for organizations, composed entirely of members of the State Society; so gradually obviating the need of the old District Societies having outside members.

In accord with this By-Law the Upper Peninsular Medical Society, under Councilor Felch, during the fall of 1904, voted to disband and organize as the Twelfth District Councilor Medical Society. As all were members of the State Society, there was no friction in the change.

Some District Societies had members outside the State Society; and other reasons, for not making the change.

Meantime, believing that organization would be promoted, in October, 1903, the Fifth Councilor District under Councilor Welsh held a meeting at Grand Rapids, and again in the fall of 1904.

Nov. 15th, 1904, under Councilor McMullen, the Ninth District held a meeting at Traverse City.

Dec. 6th, under Councilor Small, at Saginaw, the Eighth District held its meeting.

Dec. 8th, under Councilor Dodge, the Eleventh District held a meeting at Muskegon.

Feb. 20th, 1905, at Detroit, the First District, under Councilor Connor, held a meeting.

May 11th, at Durand, under Councilor Burr, the Sixth District held a meeting.

Thus seven of the twelve Councilor Districts have held meetings, decided that a continuance of similar meetings was desirable, and now seek recognition of the House of Delegates under the afore-mentioned By-Law.

As these meetings transact no other business than scientific discussion and social commingling, their plan of organization is the simplest. In most cases there is no written Constitution or By-Laws. After selecting the place for the next meeting, the President and Secretary of that Branch were made the President and Secretary of the next meeting, and members of the executive committee composed of the Secretaries of all the Branches—to which was committed all arrangements.

Aside from transportation and dinner, these meetings have no expense.

The same reasons which gave vitality to the old District Societies inhere in these before us. They admit of larger audiences than the individual Branch, and so attract more celebrated

teachers, and stimulate a fresh activity. The social commingling has attractions to not a few. They consume less time than the state meetings and more than the Branch. Thus is hoped by better papers, fresh voices, larger audiences, wider fellowships, among members of the State Society to benefit organization throughout the State.

NEW EXACTIONS OF OFFICERS IN MEDICAL ORGANIZATIONS.

The evolution of modern medical societies has both increased and diversified official labor, to a degree little understood.

The Council ventures to ask for its practical consideration, in the selection of both State and Branch officers.

A generation since most medical societies were constantly in dock; now they are trying to reach a distant port across stormy seas—are organized.

Hence the imperative need of officers able and willing to look after their interests during the entire voyage.

Personal attention must be given to making the meetings the best; personal influence is needed to keep present members active and attract outsiders; there must be constant study of conditions which may advantage the Society intellectually, socially, financially, and plans made for their active promotion.

Officers of Branches should keep their eyes not only on their own field, but the fields of their neighbors, not only in their own State, but in all States, that they may get suggestions for better work at home.

They will be wise to keep in close touch with their Councilor—as the latter's term of service is longer, and so his fund of practical study richer than other officers. It is his especial business to promote the best development of each of his Branches, and it is his pleasure to neglect no chance, but it is for the Branch officers to multiply these chances.

Certainly no Branch will neglect to invite its Councilor to each meeting, to request a formal contribution at one meeting during the year; to consult him respecting the best methods of overcoming special cases of indifference, or opposition, or ill feeling; in short, to use him as a helper in all cases of doubt, or discouragement.

As District Societies are practically new in object and method, their officers are compelled to make rules best fitting individual conditions.

It would, however, seem desirable that all State officers be invited to their meetings. If possible, the President of the State Society should be present, and have a place on the programme. If this

be impossible, the Vice-President of that District should take his place.

The Council has observed that the most prosperous Branches are those in which the exactions of official position have been most fully met; that as these have multiplied, the State Society has increased in power, and commanded the respectful attention of the laity. Among the numerous illustrations of this are the following:

In response to a wide-spread dissatisfaction with the "free medical treatment of the well-to-do at the University Hospitals," representatives of many Branches secured an interview with the Board of Regents. The results of this indicated the necessity of a doctor on such Board. Dr. Sawyer was nominated and elected. Thus the medical profession has a representative on the Board entrusted with the conduct of the State educational interests.

A bill licensing opticians as ophthalmologists, supported by long petitions of distinguished citizens, including members of this Society, and strong letters from other members, was killed in committee, because of the Michigan State Medical Society. The same power reduced by one year the time for starting malpractice suits against physicians; favorably amended the medical bill, and secured a \$30,000 appropriation for a tuberculosis sanitarium.

Traveling salesmen and other laymen say that they observe a marked change for the better among the profession of the State.

The key to rapid increase in power of the Michigan State Medical Society is the election by all the Branches of officers best able to do its work.

NATIONAL CLEARING HOUSE FOR MEDICAL SUPPLIES OF UNKNOWN COMPOSITION.

Last year the Council advised instructing your delegates to the American Medical Association to urge the adoption of a plan by which the profession could learn the exact composition of proprietary remedies in general use. You accepted the suggestion and your delegates pressed it upon the Association. While immediate action was refused, such impression was made that later the Board of Trustees appointed a Council of chemical and pharmaceutical experts, now engaged in separating the wheat from the chaff in secret medicine. Some manufacturers have met the Council half way—others are hostile—showing their fear of light.

It is expected that the findings of this Council will furnish a sound standard for admitting products to THE JOURNAL's advertising pages, and other journals having the good of the profession at heart—so settling a most vexatious question.

Your Council started the movement, in the belief that it would attract the individual doctor to the organization, which spent time and money freely that he might better know the tools he employed, and multiply his skill in using them. That it was timely is shown from expressions of satisfaction by the profession, and the howls of rage from those who have waxed fat on the spoils from unknown medicinal preparations.

To all it gives one practical answer to the question so often asked—of what value is medical organization? We may add that this is but a trifle compared with the possibilities of organization in making the individual doctor more intelligent, self-respecting, competent and respected by the laity.

A MICHIGAN DOCTOR IN THE HALL OF FAME.

Fifty names are being selected for inscription in the Hall of Fame at New York city. In 1900, twenty-one names were lacking. July 1st, the time for nomination ends. This list contains the name of no physicians. If the Michigan State Society could agree upon a suitable candidate, it might express its interest by sending the same to the appropriate committee.

With this in view, the Council suggests for consideration one of the greatest physiologists, whose studies formed an epoch in practical medicine, whose memory is marked by a monument erected by the profession of Michigan on his field of labor—the Island of Mackinac—the name of Dr. William Beaumont.

NEED OF MORE PROMPT ACTION OF THE STATE SOCIETY IN EMERGENCIES.

Occasions present themselves, between annual meetings, when it is important that the Michigan State Medical Society be able to have its position stated authoritatively. The only provision now is to communicate with the several Branches. If time be of no object, this is all right, but if a quick answer be called for it cannot be made. Some of the Branches meet only semi-annually, none more frequently than once per week.

Occasions are likely to occur during any session of the legislature, when a statement officially given would turn the tide. This was perfectly evident as the writer observed last session, when the Committee on Public Health asked "what do you represent in your view of the Optometry bill?" The reply was both quick and emphatic "as Chairman of the Council" I represent the views of organized Branch Societies in every county of the State—fully eighteen hundred voters. In this matter I was positive that I represented the Society's position.

On other occasions there might be a doubt as to the answer or action needed to voice the unanimous sentiment of the profession of Michigan. What body could best serve the Society in such emergencies?

The body should be small, representative, fully conversant with the views of its constituents. Indications are best met by leaving such matters to the President, Secretary and Council. These could meet on short notice for counsel and action.

The Society would be safeguarded by the intimate familiarity of the Council and Secretary with its thinking during many years, and the responsibility of all officers for the prosperity of the Society during their terms of service.

If there be a better way of meeting these occasional emergencies, we would gladly support it, but some way should be provided.

SENTIMENT OF LOYALTY TO MICHIGAN STATE MEDICAL SOCIETY.

The Council begs leave to emphasize the fact that loyalty to the Michigan Society has increased markedly during the years of its organization. This is manifest in many ways:

1.—Meetings are attended, not because the papers or discussions are likely to be either interesting or profitable, but because, they are a part of the Society. The acquired "society habit" is strengthened by a new sense of loyalty.

2.—Papers are prepared with greater care, from a sense of loyalty to the State Society.

3.—Harsh criticism of other doctors is restrained, because of a growing loyalty, which teaches that such is but a boomerang.

4.—Help is given *THE JOURNAL*, because it belongs to the State Society. Help in urging reputable firms to advertise therein, help in forwarding the editor news items, help in correcting visionary views, help in many ways only deserved by a fine sense of loyalty.

5.—An entirely new interest is manifest in other Branch Societies, and more practical aid rendered in making them more prosperous.

6.—There is a wider resentment against practices which discredit the organization, in whole or in part, and limit its normal operations.

7.—Larger is the conviction that all doctors in a community or the State should stand shoulder to shoulder in resisting encroachments which stunt its growth, and in promoting those which augment its virility.

Loyalty is a magnificent idea, around which clusters all that is best in life, its domination stamps the nobleman. Its steady growth among

the Branches of the Michigan State Medical Society proves the solidity of its foundations, and foreshadows largest possible achievements.

To the uninitiated, the Council suggests, that its loyal members have a work in winning to loyalty those outside our ranks, by combined instruction, persuasion and association.

SOCIOLOGICAL DISEASES STUNTING ORGANIZATION.

From the many sociological diseases, observed to retard the normal growth of organization, the Council presents the following list, in the hope that members will undertake the private treatment of such cases, as exist in their separate fields.

1.—Newspaper advertising. This disease, though less virulent than formerly, still lingers in some localities, exerting a baneful influence. Personal treatment by professional friends is always in order.

2.—Most serious is the disease manifested by taking a contract for treating the county poor at less than usual rates when the Branch has unanimously decided not to do so. The only remedy available is personal treatment by the sick man's doctor friend.

3.—The treatment of "the well-to-do" for fees far below those charged by the mass of the profession in any locality strikes at the vitals of organization.

4.—Buying cases by paying doctors a percentage cripples organization.

5.—Hospitals, whose drummers solicit business by selling yearly tickets, giving free hospital treatment if sick, in many ways disable organization.

Time fails to extend this list of diseases directly or indirectly, affecting its vigorous growth. It will be observed that all start from financial microbes. The superabundance of doctors augments the natural struggle for existence. Hence the temptation, to get that which belongs to another, by some secret, or underbidding method. Could the number of doctors be reduced to that proportion at which each could live comfortably, these diseases would die of starvation. As this is a very slow acting remedy, it remains for each to clear his own skirts, and teach his friends to do likewise. Where these habits have been cultivated, the Council notices a lessening of these diseases.

While the Council does what it can, obviously it can no more treat all cases than it can all cases of phthisis, cataract, or appendicitis, deliverance of organization from these infections demands that each member treat the cases in his neighborhood.

ROLL OF HONOR.

Art. IV, Sec. 5, Constitution, provides for a roll of resident honorary members who have won distinction, but are restricted from active service by disabilities of age or other infirmity. In accord therewith, the Council nominates for election by you the following:

1. George Howell, Tecumseh.
2. E. H. VanDusen, Kalamazoo.
3. Hermann Kiefer, Detroit.

SUMMARY.

Financial obligations of the Michigan State Medical Society have all been promptly met, and a small balance remains in the treasury. Six hundred dollars were saved to the treasury, half a contribution from the Councilors, and half by abolishing section stenographic reports.

Branch Societies cover the entire State, are on the whole, prosperous and loyal to the State Society. Each, supreme in its own domain, contributes its share in cultivating our common field.

THE JOURNAL represents more and better work in all departments; has done greater service to organization, with brighter prospects in the future; it has been fortunate in the high grade of editorial and business talent which its meagre income has enabled it to secure.

Most gratifying has been the growth of loyalty to our organization manifested in a hundred directions, as preference to our members when making nominations for life insurance examiners, or referring patients to either general practitioners or specialists; a restraint in criticism of fellow members; cheerful aid to THE JOURNAL or other interests of the Society; better attendance at Branch meetings; wider resentment of practices which discredit organization; a stronger conviction that all doctors should stand shoulder to shoulder in their Branch, and a support of both editorial and business parts of THE JOURNAL.

Evidence of increased power of organization is on every hand; as the election of a doctor on the University Board of Regents; killing in committee of Optometry bill; favorable modifications of the Medical Practice Act; a year's reduction in the time limit for malpractice suits; a \$30,000 appropriation for a tuberculosis sanitarium; starting the move for the Council of Chemistry and Pharmacy under the authority of the American Medical Association, which shall reveal the nature of drugs of unknown composition, in general use.

It is suggested that:

The applications of the seven Councilor District Medical Societies be favorably considered;

That the name of Dr. William Beaumont be telegraphed to the committee in New York as

the nomination of the Michigan State Medical Society for a place in the Hall of Fame;

That provision be made for quick action of the State Society in pressing emergencies;

That each member be urged to treat all cases of infective foci in organization occurring in his locality;

That especial care be taken in selecting all officers, with an eye single to their capability and fitness for the exacting work of the office;

That each member place first on the list of his New Year's day festivities the payment of Branch and State Society dues.

REPORT OF THE COMMITTEE ON LEGISLATION AND PUBLIC POLICY.

W. H. SAWYER, Hillsdale, Chairman.

Your Committee on Legislation and Public Policy begs to submit the following report:

The profession has fared well at the hands of the last legislature, every request having been granted. A bill drafted by the Secretary of the State Board of Registration in Medicine, providing for the examination of students who have completed the first two years' work in an accredited medical school, and have met all the requirements of primary qualifications, was passed. By this law the student is given the option of appearing before the Board, and, for a satisfactory standing in the fundamental branches, getting a credit which shall be honored at the final test. The taking advantage of this privilege permits undivided attention to be given to the practical courses. This bill was prompted by a request from the students matriculated in the colleges of the State and had the approval of the faculties and the State Board.

Sections 6 and 7 of the Medical Act were amended; section 6, so as to remove a legal doubt as to the interpretation of the law giving the State Board the power to revoke a license issued through error or mistake, and also providing for the revoking of the license of any registered practitioner who, for the purpose of procuring patients, employs any solicitor, capper or drummer; or who shall subsidize any hotel or boarding house; or pay or present to any person money or other valuable gift for bringing patients to him. Section 7, so that the practicing without a license shall be an offence to be tried in the circuit court instead of in a justice court where an abnormal public sentiment often makes litigation to enforce this provision of the law unsatisfactory or tedious.

The statute of limitations was amended so that an action for malpractice must be instituted within two years of the time of the alleged damage

instead of within three years as before. Dr. F. B. Tibbals deserves full credit for this improvement as by his persistent effort and his influence he insured its passage.

With the cordial support and assistance of the organized profession which responded to every call, several bills which were vicious in tendency and opened the way for lessened rigidity of State discipline and control were defeated.

The committee wishes to express appreciation of the work of the medical members of the legislature who by vote and influence did much toward accomplishing the desired reforms.

REPORT OF THE MICHIGAN MEMBER OF THE NATIONAL LEGISLATIVE COUN- CIL OF THE AMERICAN MEDI- CAL ASSOCIATION.

EMIL AMBERG, Detroit.

The Michigan member of the National Legislative Council of the American Medical Association wishes to report as follows:

Upon directions from the chairman's office in Cincinnati, your committee endeavored to influence our representatives in Washington to pass the pure food and drug bill. By motion of the United States Senate, the names and communications of societies and individuals who addressed Senator Heyburn, the chairman of the Committee on Manufactures of the United States Senate, have been ordered printed and have gone on record in Senate Document No. 248, Second Session of the Fifty-eighth Congress: "Letters and Petitions from Various Citizens of the United States urging the Passage of the Bill (H. R. 6295), entitled, 'A Bill for Preventing the Adulteration or the Branding of Foods or Drugs and for Regulating Traffic Therein and for Other Purposes.'"

With great regret your committee has missed the names of many who might have contributed their share to this most important cause. Our efforts have failed. Your committee is informed by United States Senator Heyburn that immediately upon convening of the next congress, a pure food and drug bill will be introduced, and I ask you for your vigorous assistance in order to further a measure which is of such great importance for the welfare of the people of the country.

Your committee had been asked by a member of the National Auxiliary Congressional and Legislative Committee of the American Medical Association to try to remedy a condition existing at the University Hospital in Ann Arbor. After

having first refused to take charge of the matter as not coming within the scope of this office the reliable information that the question involved the medical profession also outside of Michigan, made it your committee's duty to bring the matter before the chairman of the National Legislative Council of the American Medical Association. Supported by the chairman, a movement has been inaugurated by your representative, which has not yet come to an issue. With the loyal and conscientious co-operation of the county auxiliaries, a great step in advance has been made and a happy solution of the question may, we hope, take place at a no distant date.

Your representative has been appointed by the legislative council a member of a sub-committee of five in order to draw up a model medical practice act. Your representative has urged the introduction of an obligatory Fifth Practical Year in a hospital. The introduction of a Fifth Practical Year is feasible. This measure, if adopted, in connection with other plans, is liable to change the whole aspect of medical training and medical practice in the course of time, as the future, I hope, will demonstrate.

The incumbent of this office has been honored by five consecutive appointments. Many pleasant recollections are interwoven with his work which, at least at times, was of a rather difficult nature. Without exception, so far as his memory goes, the office has been treated with great courtesy and encouragement by representatives of the people in high positions. The work of the members of the National Auxiliary Congressional and Legislative Committee of the American Medical Association of the counties in Michigan has been faithful and prompt and deserves the highest praise. I also express my appreciation to the county auxiliaries in our adjoining States, to the chairman of the National Council, Dr. Charles A. L. Reed, of Cincinnati, and to all the members of the Michigan State Medical Society.

The conditions which exist in the medical profession of today are symptoms of a developing nation and as such destined to disappear. Future generations will look back to our time and study the same with the same astonishment which characterizes our view of former times. The mere appreciation of the best is not sufficient, and, in fact, of little value, if it is not followed by conscientious, determined and persistent application for the general welfare. The efforts of past generations have created the surroundings and the possibilities which are enjoyed and appreciated by us today. This state has been reached by progress. Progress by its very nature always creates

a certain antagonism, because it intends to replace something in existence by something different from it, which is regarded to be better. To this truth any citizen of this country should be only too glad to testify with pride.

In our profession nowadays a certain inertness has established itself so firmly that any departure from it is very apt to be regarded with suspicion, that any motives are liable to be misconstrued, and that little possible mistakes are magnified unnecessarily and unwarrantedly. I prefer the energetic, open, large-hearted man with the desire for progress, even if he should make a mistake once in a while. Buckle says: "Give us paradox, give us error, give us what you will so that you save us from stagnation. It is the cold spirit of routine which is the night-shade of our nature; it sits upon men like a blight, blunting their faculties, withering their powers and making them both unable and unwilling either to struggle for the truth or to figure to themselves what it is that they really believe."

Between the hypocritical declaration of an altruistic condition and the heartless, narrow-minded, self-centered egotism which appears not only in efforts of the individual but in the combined scope-limited work of recognizable groups we must find that justifiable egotism which, in gracious and dutiful recognition of one's own standing, takes for itself only a just share and does not abuse a position reached by gift, influence and support of others, thus, knowingly or unknowingly, trying to create for the present and future generations a condition based on injustice, obtained by disregard of the mutual obligation of members of a community, which latter consisting in part of your own children, for the sake of self-protection may be forced to resort to retaliatory measures.

The interests of the profession and of the community demand of us a clear understanding of issues, and energetic treatment of the same.

Permit me to ask the county auxiliaries and all the other members of the medical profession to assist my successor with ever increasing zeal. I appeal especially to the *young* men and ask them to give a little of their time and some of their efforts to medical sociology. They are morally obliged to do so, because the future is entrusted to them. I remind them of the words of the baccalaureus in Goethe's "Faust:"

"Man's life is in the blood, and where, in sooth,
Pulses the blood so strongly as in youth?"

"That's living blood, which with fresh vigor rife,
The newer life createth out of life."

REPORT OF COMMITTEE TO PETITION THE LEGISLATURE FOR AN APPROPRIATION FOR THE ESTABLISHMENT OF A PROPERLY EQUIPPED SANITARIUM FOR TREATMENT OF THE EARLY STAGES OF TUBERCULOSIS.

HENRY J. HARTZ, Detroit, Chairman.

Your special committee appointed to petition the Legislature for an appropriation for the establishment of a sanatorium for the treatment of tuberculosis begs leave to report its success in securing favorable action by the Legislature of 1905. The sum of \$30,000 was appropriated for the founding of a State sanatorium for the dependent class who are suffering from incipient tuberculosis. Fifteen thousand dollars is to be devoted to the buildings, and the remainder for maintenance until the next session of the Legislature in 1907.

The bill provides for the appointment by the Governor of a Board of Trustees, who serve without pay, and which is to be composed of four physicians and two laymen. The trustees will be held responsible for the selection of a site, the construction of buildings, and for the proper management of the institution. The superintendent is required to be a physician of four years' experience, and is appointed by the board at a salary not to exceed \$2,000 per annum.

In the interest of economy a provision was made that permits of the use of State land, at the option of the board, if suitable conditions can be found.

Your committee spared no expense nor time in securing favorable influences in support of the measure during the last six months, a number of our profession using their private funds to defray the expense of traveling to Lansing, and of organizing societies for the prevention of tuberculosis. Dr. Victor C. Vaughan, of Ann Arbor, and Dr. Collins H. Johnston, of Grand Rapids, organized in Grand Rapids. Dr. E. S. Sherrill, Dr. S. A. Knopf, of New York, and the writer formed an anti-tuberculosis society in Detroit. Dr. J. H. Kellogg also established such a society in Battle Creek. The influence of these societies through laymen and physicians as members proved potent in impressing the legislators.

The committee were fortunate in the selection of Senator M. H. Moriarty and Representative Nicholas J. Whelan, Speaker pro tem., as sponsors of the measure, who labored unselfishly for the passage of the bill, which was accomplished without one dissenting vote. Such a satisfactory result would have been impossible without the

powerful aid of His Excellency, the Governor, at a time when the bill seemed in peril. Therefore, your committee feels that the enactment into law of our measure to provide for the tuberculous poor is an occasion for congratulation to the Governor and legislators for their official acts, and their wise co-operation; and further we would suggest that a resolution of commendation be passed by this Society, and extended to them by our Secretary.

While the appropriation is a modest one, and permits only of a small beginning—perhaps only twenty-five patients will be accommodated—yet it offers much promise of good, not only by saving a few lives, but also by its educational influence in the proper care and in the prevention of tuberculosis throughout the entire State of Michigan.

Provisions for State treatment of tuberculosis exist now in eleven other States. The first was begun in 1895 in Massachusetts; the second institution was founded in New York State in 1898, largely through the personal influence of President Roosevelt, then Governor of New York State.

REPORT OF COMMITTEE TO ENCOURAGE
THE SYSTEMATIC EXAMINATION OF
THE EYES AND EARS OF SCHOOL
CHILDREN THROUGHOUT
THE STATE.

W. R. PARKER, Detroit, Chairman.

Your committee appointed at the last meeting, to encourage the systematic examination of the eyes and ears of school children throughout the State, has the honor to make the following report:

Governed by the action of the American Medical Association, the following resolution was submitted to and adopted by the State Board of Education, the State Board of Health, and the Board of Health of the city of Detroit.

Whereas, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore, be it

Resolved, That it is the sense of.....
.....that measures be taken by boards of health, boards of education and school authorities, and, where possible, legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipency may be discovered and corrected."

The method of examination, and cards with printed instructions have been arranged by Dr. Allport, of Chicago, and we would recommend

that the cards and instruction, as arranged by Dr. Allport, be used in these examinations and that not only scholars in the high schools, but in the graded schools, except the first grade, be systematically examined.

Following is a copy of the rules as printed on each test card:

VISION CHART FOR SCHOOLS.
SNELLEN'S.

CC

E

200

C

B C

100

LXX

N L D

70

L

R T P E

50

XL

E Z F B D

40

XXX

C T L G F O

30

XX

E O P Z F R D A

20

(The test should be read by a normal eye at 20 feet)

INSTRUCTIONS FOR THE EXAMINATION
OF SCHOOL CHILDREN'S EYES
AND EARS, ETC.

(After the Method Proposed by Dr. Frank Allport, of Chicago, Ill.)

FOR USE OF PRINCIPALS, TEACHERS, ETC.

Do not expose the card except when in use, as familiarity with its face leads children to learn the letters "by heart."

First grade children need not be examined.

The examinations should be made privately and singly.

Children already wearing glasses should be tested with such glasses properly adjusted on the face.

Place the "Vision Chart for Schools" (Snellen's) on the wall in a good light; do not allow the face of the card to be covered with glass.

The line marked XX (20) should be seen at twenty feet, therefore place the pupil twenty feet from the card.

Each eye should be examined separately.

Hold a card over one eye while the other is being examined. Do not press upon the covered eye, as the pressure might induce an incorrect examination.

Have the pupil begin at the top of the test card and read aloud down as far as he can, first with one eye and then with the other.

FACTS TO BE ASCERTAINED.

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters in the number XX (20) line of the Snellen's Test Types, with either eye?
3. Do the eyes and head habitually grow weary and painful after study?
4. Does the pupil appear to be "cross-eyed"?
5. Does the pupil complain of ear-ache in either ear?
6. Does matter (pus) or a foul odor proceed from either ear?
7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room? Each ear should be tested by having the pupil hold his hand over first one ear, and then the other. The pupil should close his eyes during the test.
8. Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat?

9. Is the pupil an habitual "mouth breather"?

If an affirmative answer is found to any of these questions, the pupil should be given a printed card of warning to be handed to the parent, which should read something like this:

CARD OF WARNING TO PARENTS.

After due consideration it is believed that your child has some Eye, Ear, Nose and Throat disease, for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected.

Respectfully,

School.

If only an eye disease is suspected, the words "ear, nose and throat" should be crossed off; if only an ear disease is suspected, the words "eye,

nose and throat" should be crossed off; if it is only a nose and throat disease, the words "eye, and ear" should be crossed off.

It will be observed that these cards are non-obligatory in their nature. They do not require anything of the parent, who is at perfect liberty to take notice of the warning card or not, as he sees fit. They simply warn the parent that a probable disease exists, thus placing the responsibility upon the parent.

Nevertheless, if parents neglect the warning thus conveyed, the teacher should, from time to time, endeavor to convince such parents of the advisability of medical counsel. Teachers are urged to impress upon pupils and parents the necessity for consulting reputable physicians.

These tests should be made annually at the beginning of the Fall term, and should include all children above the first grade.

Each teacher should examine all the children in his or her own room, and should report the results of such examinations to the principal, such report to be signed by the examining teacher.

The following simple form of report, to be filled out by the teacher and handed to the principal, is suggested and may be printed upon paper of any size and character that is deemed advisable by the local school authorities, and should be distributed to the different room teachers.

No.	NAME OF PUPIL	Do the tests indicate an Eye, Ear, Nose or Throat Disease? Answer "Yes" or "No." If so, which!	Was the pupil given a Card of Warning
1	John Doe	Yes Eye	Yes
2	Robert Smith	Yes Ear	Yes
3	Mary Brown	No	No
4	Edward Hart	Yes Nose or Throat	Yes

The method is so simple that the teacher could soon learn to make the examination. Thus, great good could be accomplished without expense to the State.

REPORT OF COMMITTEE ON VITAL STATISTICS.

H. B. BAKER, Lansing, Chairman.

Much has been accomplished in Michigan relating to vital statistics, and it has been in great part due to this Society and its members. This is true concerning the law for the collection of records of births and deaths, and the law establishing the

State Board of Health, and providing for sickness statistics.

The undersigned chairman was first appointed on this committee in this Society in 1870, and since then he has labored faithfully for the advancement of the work. For many years Dr. C. L. Wilbur has had charge of the State statistics of births, marriages, and deaths, and has done a great work for the improvement of the most important part, relating to deaths. As to statistics of births, the legislature at its recent session passed an act which will place Michigan in the front rank. The act is nearly the same as the bill recommended by your committee two years ago and previously reported on.

In studying the causation of diseases, mortality statistics are useful, but not sufficient. For that purpose, sickness statistics are very much more important. One brief illustration of the prospective usefulness and importance of morbidity statistics is all that can be given here. The disease which is now reported as causing the most deaths in Michigan is pneumonia. It is known to be caused by micro-organisms, yet that something more than the specific germ of the disease is involved in its causation is made certain by the fact that following the hottest month in each year the disease is almost entirely absent, while following the coldest month in each year, its greatest prevalence occurs. This has been proven by the Michigan morbidity statistics. Before the most perfect work for the restriction and prevention of pneumonia can be planned, the subject needs to be studied from several standpoints, including the bacteriological and the statistical; and, for this study, morbidity statistics bring us closer to the causation of the disease than do the mortality statistics.

To Michigan belongs the honor of establishing and of maintaining for many years more complete morbidity statistics than any other State or city. I regret to be obliged to report that these statistics have very recently been discontinued, this being one result of action by the present State administration in crippling the State Board of Health. Most persons, except a few experts, have difficulty in appreciating statistics based on representative data, and except in armies and navies, morbidity statistics must be so based, because it is manifestly impossible to obtain a record of all sickness.

By an act of Congress, approved July, 1902, the United States Government provided that the Surgeon General of the United States Public Health and Marine Hospital service shall collect and publish morbidity statistics. How best to accomplish that duty for the United States is a

problem not easily solved. Two years ago the Surgeon General, acting as chairman of the conference of delegates from State boards of health, provided for by the United States, appointed the chairman of your committee on vital statistics to be chairman of a committee on the same subject in that conference. Two annual committee reports were made including the subject of morbidity statistics; but although serious consideration has been given this subject by the Surgeon General, the actual collection of such statistics has not yet been commenced. It has been suggested that now that the medical profession throughout the United States is so thoroughly organized, if the County Societies would undertake the work of supervision for their counties, a few representative physicians in active general practice in each county may be willing to make the necessary weekly reports of the sickness under their observation, and, if so, the United States Government may supply the necessary blanks, postage, compilation and publication, under the act of Congress of July, 1902. The most valuable reports would be from such sources. If the members of the medical profession were not the most philanthropic persons, your committee would not dare to propose this plan; but as the Michigan morbidity statistics were started in 1876, by voluntary reports made by representative physicians, members of this Society, this subject is respectfully submitted for any action or suggestion which this Society, the County Societies, or individual members may feel inclined to offer.

Possibly the Surgeon General of the United States Public Health and Marine Hospital Service might be encouraged to commence the work, if this Society, representing the profession in Michigan, were to give expression in encouraging words. Your committee will be glad if the Society shall adopt an appreciative resolution commending the carrying out of the provision for morbidity statistics, made in the act of Congress, July, 1902; especially if the view can be expressed that the members of the medical profession in Michigan will co-operate to the best of their ability.

DR. WM. M. EDWARDS, OF KALAMAZOO.*

BY C. B. BURR, M. D., FLINT.

Dr. Wm. M. Edwards, late Medical Superintendent of the Michigan Asylum for the Insane, Kalamazoo, died at the University Hospital in

*Presented to the Michigan State Medical Society at the 40th annual meeting, Petoskey, June 28-30, 1905.

Ann Arbor on the 26th of April, 1905. He was born September 17, 1855, at Peru, Indiana, and was educated at the district schools in his native town, in Smithson College at Logansport, and the University of Indiana. He was graduated from the Department of Medicine and Surgery of the University of Michigan in 1884, was appointed assistant physician to the Michigan Asylum the same year, and elected Medical Superintendent of that institution June 1, 1891. He was married August 10, 1897, to Emma Ardele Merritt, of Union City. They had one child, who died in infancy.

To those who knew Dr. Edwards intimately his resourcefulness and ability to accomplish work were no less than marvelous. Handicapped by a disease of the heart which had been in existence for many years, and was of a gravity to incapacitate a less courageous man, he steadily ignored its existence and conducted the affairs of the important institution over which he presided with brilliant success. He had executive ability of a high order and a dependable and retentive memory. He never spared himself, and if criticism were to be passed upon his work it is that he erred on the side of too great personal attention to detail. During his administration the complexion of the establishment was transformed. The somewhat antiquated buildings were changed to an extent which amounted practically to reconstruction. The colony system was extended and developed, detached hospitals and infirmaries for patients of both sexes were erected, a beautiful building combining the purposes of chapel and amusement hall, a monster power and electric light plant and a water tower were built. Fire walls were placed in the attics and between sections of old buildings. Outside fire escapes, ample store rooms, shop buildings, and a cottage for men employed on the farm were built, and other improvements one after another effected. A highly successful training school was organized, and to this important work he gave his best thought.

He had an eye single to the welfare of the patients; his sympathies were large and went out in overflowing measure to patients and their relatives. Patients were his friends and he their help and dependence. He gave hours to conversation with them and with their relatives, where many spare minutes only. He had keen appreciation of their habits of thought and was singularly responsive to the humorous side, a characteristic not lacking in the most successful men in a work naturally depressing and calling for large emotional expenditure.

His manner was in the highest degree gentle, considerate and refined. He possessed a suavity and grace that appealed to everyone. As a host

he was simply ideal and left with guests the impression that their presence was conferring a favor upon him every minute. During the last year he was under sentence of death. He had been told by a distinguished London physician that he had at the outside not more than three years to live; but he never faltered in his work, and was on his way to the San Antonio meeting of the American Medico-Psychological Association, a journey which he expected to take by easy stages, when he discovered the presence of an icy hand pointing to the inevitable result. He hurried to Michigan and placed himself, as he had once before, in the University Hospital at Ann Arbor, but, unfortunately, the best directed efforts of the attentive and sympathetic staff were unequal to arresting the progress of the disease, and death soon came, preceded by a blissful period of unconsciousness of two or three days' duration.

It is not extravagant to say that he was one of the strongest pillars of the American Medico-Psychological Association. No member was more constant in attendance, more ready to help out in the program with papers, or more willing to take part in every professional and social event in connection with the meetings. It was a matter of conscience with him to attend every session, and he could be depended upon to be in his seat at the stroke of the gavel. He never permitted an outside distraction to seduce him from this allegiance, and might be invariably relied upon to take part in discussions, particularly those which bade fair to be apathetic. Moreover, he always had something interesting to say. From a vantage point on the platform for several years, I often took notice of his face. He was attentive, responsive, and constantly alert. He thought quickly, saw points readily, made opportune motions, and was a great comfort to the presiding officer because of his prompt recognition of the parliamentary conventions.

Dr. Edwards was a member of the Council of the American Medico-Psychological Association for several years, and on one or more occasions represented the Association at the meeting of the British Medico-Psychological Association. He was Vice-President of the State Medical Society, a member of the American Medical Association and of the Kalamazoo Academy of Medicine, of which he has been president. For some years he was on the editorial staff of the *Physician and Surgeon* at Ann Arbor, and special lecturer on insanity in the Department of Medicine and Surgery in the University of Michigan. He was a member of the Nu Sigma Nu fraternity, of Anchor Lodge No. 86, Kalamazoo Chapter No. 13, Peninsular Commandery No. 8. He has pre-

pared many papers for the Kalamazoo Academy of Medicine, the American Medico-Psychological Association, and the State Medical Society; is the author of the reports of the Michigan Asylum at Kalamazoo since 1891, and of numerous papers to the Joint Board of Trustees, the Conference of Charities, and other organizations interested in the care of the insane. Last year he read a paper before the Board of Control of the Iowa State Institutions.

Dr. Edwards had the happy faculty of saying comforting and appreciative things. With nothing of the sycophant or time-server in his composition, he had graceful ways of making amiable expressions, and in his estimate of men and their work never erred on the side of the uncharitable. He looked for the best, and, looking for the best, discovered it. The institutional policies he adopted were broad and liberal. The development of American psychiatry owes much to his efforts. We were practically contemporaries in hospital superintendency and our work brought us into close association for many years. He was judicious as adviser, lovable as companion, and in his relations with the public and his profession *sans peur et sans reproche*.

Correspondence.

Secretary:—On my return from the country I find your kind note awaiting me, and to my great surprise informing me that at the recent annual meeting of the Michigan State Medical Society I was unanimously elected an honorary member of the same.

I beg to thank the Society most heartily for the honor bestowed, an honor highly appreciated by me, the more so as it came quite unexpected and from the galaxy of medical men of the proud State of Michigan.

Yours very respectfully,

HERMAN KIEFER.

Detroit, Aug. 8, 1905.

Medical News.

Owing to labor trouble the September issue of this publication has been delayed.

The New York City Board of Health urges the city to establish an adequate filtering plant at the earliest date possible, because all water contains infectious germs, and experience has proved that ninety-nine and one-half per cent. of the bacteria, and most of the suspended organic and in-

organic matters can thus be removed. It adduces facts showing that experience supports its views. Typhoid fever and diarrhoea diseases are largely due to water.

The city of New York has purchased a large tract of land on the mountains of Orange County, about sixty miles from the Hudson, on the Erie Railway, for the establishment of a Consumptive Sanitarium. There are so many farm houses on the tract that patients can be soon cared for. The location is in the same region as the Loomis Consumptive Sanitarium at Liberty—but easier access from New York. The latter is under private control.

The government is beginning to consider the problems connected with protecting the lives of the men who shall dig the Panama canal. Yellow fever has been a constant menace, and now fears of the bubonic plague are considerable. Plenty of opportunity presents for preventive medicine to demonstrate its practical value. If it can keep the men well, the canal will be completed on time.

The State of Massachusetts has brought Penikese Island for a leper hospital at a price of \$25,000.

On July 6th, the Great Northern flyer, was wrecked near Willston, N. D. It carried many physicians en route to the Portland Association meeting, among whom was Dr. Frank Billings, of Chicago. Seven cars were burned, thirty persons injured, none of them were physicians. Other accidents, sickness of physicians, reported were few. One is reported to have died at Livingston, from appendicitis.

The Louisiana State University proposes next session to inaugurate a preparatory course for medical students. This will embrace bacteriology, histology, embryology, anatomy, materia medica, toxicology and chemistry. Especial attention is to be paid to the German and French languages and the whole course is to be arranged so as to bear upon the preparation of students for subsequent instruction in medicine.

Dr. Florence R. Sabin is associate professor of anatomy at Johns Hopkins Medical School. She is a graduate of Smith's College and Johns Hopkins Medical School, and widely known for her work on the anatomy of the nervous system.

Baron Rothschild left four millions of dollars to establish a sanatorium for diseases of the nervous system.

Book Notices.

Under the Charge of

RAY CONNOR.

PSYCHIATRY. By Stewart Paton, M. D. Octavo, 625 pages, 39 illustrations. Cloth, \$4.00. J. P. Lippincott Company, Philadelphia and London, 1905.

The great increase of knowledge concerning those morbid conditions of the human body commonly but erroneously described as mental disease and the resulting improvements made in recent years in the methods employed in the investigation and treatment of them, may in part be urged as justifying the publication of another book on Psychiatry. The main object of the writer has been to call attention to that aspect of the subject which is in accord with the results of observations as they are conducted to-day at the bed-side and in the laboratory.

The book may be divided arbitrarily into two parts. The first 224 pages are given up to general consideration of alienation. Chapter one takes up the importance, scope and methods of modern Psychiatry. Chapter two deals with the nature of the diseased process in alienation and its relation to the pathological changes. The writer then takes up the symptoms of alienation, the method of examination of patients, including examination of the cerebrospinal fluid and the treatment of such cases. Chapter four briefly describes the Modern Hospital for the Insane. The first half of the work is concluded by a consideration of the general causes of insanity.

Dr. Paton opens the second part of his book with a discussion on the principles concerned in the provisional clinical grouping of mental diseases. His classification is based on that of Kraepelin.

The same methods that are employed in other departments of medical science can be used in studying the so-called mental diseases, as they are but a branch of general medicine. It is particularly desirable that general practitioners should early recognize and begin the treatment of these cases, as much better results can be obtained if taken in their incipency than if allowed to remain until it is necessary to place the patient in an institution for the insane.

The illustrations are unique, interesting and instructive. It is the expectation that this work will stimulate the interest of the students of Psychiatry.

G. L. C.

STUDIES IN THE PSYCHOLOGY OF SEX. Vol. IV. Sexual Selection in Man—Touch, Smell, Hearing, Vision. By Havelock Ellis. 259 pages. Cloth, \$2.00. F. A. Davis Company, Philadelphia, 1905.

Tumescence, the process by which the organism is brought into the physical and psychic state necessary to insure conjugation and detumescence—comes about to some extent through the spontaneous action of internal forces. But even among animals who are by no means high in the zoological scale the process is more complicated than this. External stimuli act at every stage, arousing or heightening the process of tumescence and in normal human beings it may be said that the process is never completed without the aid of such stimuli, for even in the auto-erotic sphere, external stimuli are still active, either actually or in imagination.

The chief stimuli which influence tumescence and thus direct sexual choice come chiefly, indeed exclusively, through the four senses of touch, smell, hearing and sight. Of the four senses—touch, smell, hearing and sight, touch is the most primitive, and may be said to be the most important, though it is usually the last to make its appeal felt. Smell, is of comparatively less importance, though of considerable interest, it is only less intimate and final than touch. Sight is the most important of all the senses from the human sexual point of view. Hearing is the most remote sexual impulse, and on that account it is, when it intervenes, among the first to make its influence felt.

G. L. C.

SURGICAL DIAGNOSIS. A Manual for Practitioners of Medicine and Surgery. By Otto G. T. Kilian, M. D. Illustrated by fifty-nine full-page plates and by engravings in the text. 450 pages. William Wood & Co. New York, 1905.

The question of diagnosis being all important, any aid to arriving at the correct one is always welcome. In this volume the author aims to provide help for the practitioner of medicine in answering that oftentimes difficult question whether or not the patient requires surgical interference. The diagnosis of disease is and much always be a medical question and must be decided in a large majority of cases by the family doctor.

The author first considers methods of examination and how to carry them out properly. The remainder of the book is arranged in anatomical order beginning with the head and then trunk

and extremities. The technique of the operation indicated is not gone into at all, and only enough said of the prognosis to aid in advising the patient as to the best course to pursue.

The book is very nicely gotten up and well illustrated. Many of the plates are radiographs, which as a rule are superior to many published. The paper and type is unusually good, and heavy type and marginal topics make it easy of reference. The author makes no effort to cite authorities and no bibliography is given as the book does not pretend to be a complete system of surgery. It will find its field of usefulness amongst general practitioners for whom so many books are now published.

PRACTICAL PROBLEMS OF DIET AND NUTRITION. By Max Einhorn, M. D. Cloth. 64 pages. William Wood & Co., 1905.

This little book is made up of half a dozen essays which have appeared at various times and in various places. They are on important questions relating to diet, and in all of them special stress has been laid upon the great importance of sufficient nutrition. The papers are short and to the point, and deal with such topics as the Art of Eating Properly, Diet of Dyspeptics, Sitophobia and Inanition, and their Treatment, etc. The last chapter deals with the Art of Increasing and Diminishing the Bodily Weight at Will. The author's style is clear and his treatment of his subjects practical. The book is attractively gotten up.

THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA. Eighth Decennial Revision. By authority of the United States Pharmacopœial Convention held at Washington, A. D. 1900. Revised by the Committee of Revision and published by the Board of Trustees. Official from September 1st, 1905. 692 pages.

The committee in charge of this revision have succeeded in getting out a very attractive publication. A number of changes have been made in order to conform with the standard adopted by the International Conference on Potent Remedies, held at Brussels in September, 1902, the object being to make uniform the strength of potent remedies in all parts of the world. The tinctures are divided roughly into two classes, potent tincture 10 per cent. and other tinctures 20 per cent. This makes many changes, and among the most important the strength of Tincture of Aconite has been reduced from 35 per cent. to 10 per cent., and that of Tincture of Veratrum from 40 per cent. to 10 per cent. The strength of Tincture of Strophanthus has been increased from 5 per cent to 10 per cent.

The strength of Syrup of Ferrous Iodide has been reduced from 10 per cent. to 5 per cent. in order to conform to the international standard. The standard of 1 per cent. for liquid arsenical preparations and the long established United States Pharmacopœia standard for fluid extracts (1 Cc. representing 1 gr. of drug) were both adopted by the International Conference.

For the first time certain synthetized products have been admitted to the Pharmacopœia. These however, must be of definite composition, in common use by the medical profession, the identity, purity and strength of which can be determined. Trade names are not used with these products but abbreviations when the chemical titles are too long will soon come into use. Extractum fluidum has now been shortened to fluidextractum, and the fluid extracts are therefore under F.

Of those articles previously official, 151 have been dismissed, while 117 new ones have been added. Acidum Carbolicum now appears as Phenol and Chloralum Hydratum now replaces the less accurate Choral.

The press work is well done on good paper, and the committee on revision are to be congratulated on a task well performed.

THE NATIONAL STANDARD DISPENSATORY. By Hare, Caspari and Rusby. Lea Bros., Philadelphia, 1905.

Will be ready for sale September 1st, the date when the new U. S. Pharmacopœia goes into effect. By authority of the Convention it will contain every article in the new U. S. P., as well as the explanations and instructions necessary to understand and apply the brief statements to which the official guide is restricted.

The National Standard Dispensatory is a new work, distinct improvement upon anything of the kind hitherto published. Its authors, Dr. H. A. Hare, of Philadelphia; Prof. Charles Caspari, Jr., of Baltimore; and Prof. H. H. Rusby, of New York. They have carefully matured its plan so as to render the maximum service to both professions it interests, namely, Pharmacy and Medicine. It not only covers the new U. S. P. as aforesaid (and the chief foreign pharmacopœias as well), but the scarcely less important domain of the unofficial drugs and preparations so largely used. It offers full information regarding the pharmacognosy, the pharmacy, and the medical action and uses of all substances used in Pharmacy, and the medical action and uses of all substances used in Pharmacy and Medicine at the present day. Pharmaceutical methods and products are covered with descriptions of the most approved apparatus and tests.

Progress of Medical Science.

MEDICINE.

Under the Charge of

HARRISON D. JENKS.

Bacillus Coli Comminus as a cause of Septicaemia.—The colon bacillus has been proved to be a causal factor at times in (1) cholera nostras dysentery, (2) peritonitis, (3) angiocholitis and cholangitis, (4) cystitis, (5) in pluri- and bronchopneumonia, (6) endocarditis, (7) meningitis (8) arthritis. Also in pancreatitis, mastitis, otitis media, and conjunctivitis. While some of the symptoms produced may be as the result of its pus producing powers, others seem to be of a supraemic nature due to the absorption of the common bacillus toxins. It has never been definitely decided that the germ can assume a septic role as distinct from a pyogenic one, producing a true septicaemia. Cases have been reported in which during life septicaemic symptoms were present, and the bacillus found in the periplural blood during life, and others were found in the blood and in the viscera after death. There are but very few of these cases in literature where the bacillus has been found during life.

Moorhead, after carefully weighing the evidence, believes bacillus coli communis septicaemia as probable. Its existence may account for the failure of antistreptococcal serum in some of the cases.

He reports in detail the history of a patient of his, 37 years old, a lineman. Previous to entrance to hospital he had been sick for three weeks with pain in bones, head, and back. Just before entrance he had a chill. On entrance he was found to have temperature of 100°, pulse 64, expression dull, tongue coated, chest and abdomen negative, blood count, red, 3,300,000, white 30,000, of these neutrophils 78 per cent, eosinophiles 2 per cent., lymphocytes 16 per cent, hyaline cells 4 per cent.

For 73 days he had a daily chill, followed by sweating and joint pain. Widal tests were negative, the white cells diminished in number to about 12,500, where they remained until fatal termination. Urine was always negative. The pulse was never higher than 80 even during the chill. His appetite stayed good, and he even gained in weight until about a month before death. During this month, though semicomatose, he had intense itching accompanied by automatic scratching. Death occurred 126 days after admission. Post-mortem examination showed some petechial patches in stomach and intestines. Plate cultures from cerebrospinal fluid, ventricle

of the brain, spleen, and blood from heart showed pure cultures of colon bacillus of a virulent form. Moorhead believes this case to have been one of colon bacillus septicaemia.—(T. T. MOORHEAD, *The Practitioner*, June, 1905.)

The Effect of Tobacco in Health and Disease.—(a) Heart and circulation. Nicotine, Lauder Brunton says, causes slowing of the heart with enormous rise in blood pressure, equaled only by suprarenal extract. Nicotine is taken into the body only when chewing is done, or snuff taken. This tobacco contains but little nicotine. It is not pure nicotine when smoked. Inhaled smoke causes the absorption of the most nicotine. Excessive smoking may effect the circulation causing palpitation and pain, even simulating angina pectoris. Irregular heart is common, showing itself by a pause, one or two heavy beats, then several quick small beats, this is more common with cheaper forms of tobacco.—(L. Brunton).

(b) Gastro intestinal tract. Dalton says smoking increases the salivary secretion. In this is probably little or no nicotine, but an acid oil. Vomiting in acute poisoning is from nerve depression. Tobacco using tends to cause hyperchlorhydria, appearing as heartburn.—(N. Dalton).

(c) Nervous system. The effects vary with different persons. Children are peculiarly susceptible to tobacco. In those on whom it has any influence it may take the form of (1) tremor, fine and rhythmical, (2) giddiness from disturbance of the vagus, (3) vaso-motor effects, as coldness of extremities and blueness, (4) sleeplessness, "intra-nocturnal insomnia," good sleep in early hours, then wakefulness, followed by a restless sleep.—(J. Taylor).

(D) Mouth and tongue. When tobacco is smoked, the greater part of the nicotine is changed into pyridine and its compounds, but 1-7 of the nicotine remains. In pipe smoke pyridine is left. In cigar smoke collidin. In chewing tobacco probably pyridine is formed. These affect the mucous membrane as follows. 1. Excoriation. 2. Superficial glossitis. 3. Chronic glossitis. 4. A warty or horny patch of heaped-up epidermis, the forerunner of epithelioma.—(W. G. Spencer).

(E) Upper air passages. There seems much uncertainty about what effects result. Most troubles found indirect results, due to dyspepsia or systemic poisoning induced by smoking. Cigarette smoke is most harmful. Cigar the least so.—(L. Lock).

(F) Eyes. Two results. 1. Catarrhal conjunctivitis from dense smoke. 2. Tobacco amblyopia, from chronic absorption of nicotine, the latter occurs more often in alcoholic smokers.—(H. Lyle *Symposium, the Practitioner*, July, 1905).

NEUROLOGY.

Under the Charge of

GUY L. CONNOR.

A Treatment Room for Epileptics.—Everett Flood has fitted up a special room for the treatment of such conditions as are the most troublesome among the chronic epileptics in the Massachusetts Hospital for Epileptics at Palmer, Mass. The main feature of this room is a large wooden cabinet in which a patient may sit and be tightly shut in with doors, having the head protrude at the top. The cabinet is fitted with 100 electric lights of 16 candle-power each. There are ten switches with 10 lights on a switch so that the heat and light may be applied as moderately as desired. The registering thermometer protrudes from the top and can be conveniently observed while the patient is undergoing the heating process.

The routine procedure has been to select those patients who are about to have series of epileptic seizures, with a view to warding off the approaching attacks, those who have rheumatic pains and stiffness, the asthmatic, those who have attacks of paramyoclonus just when the "shakes" are commencing, those suffering from insomnia, those suffering from auto-intoxication as evidenced in any way, and those who demand treatment as an inalienable right.

The use of this cabinet appears first to dilate the whole vascular system with a gradual return to a better condition than existed at the outset, to give tone to the muscular arterial coating, and to aid the return lymph flow; both functions which are of great importance to the final well-being of the encephalon—(EVERETT FLOOD, *The Boston Medical and Surgical Journal*, July 6, 1905.)

Charcot's Disease of the Ankle in a Case of General Paralysis of the Insane.—Billington and Barnes report a case of Charcot's disease of the ankle occurring in a man with symptoms of general paralysis of the insane. The chief point of interest underlying the affection of the nervous diseases which are associated with Charcot's disease of the ankle, was to determine what was the nervous disease. The commonest diseases which are associated with Charcot's disease of the joints are tabes, multiple neuritis, and syringomyelia. A careful examination of the case sufficed to exclude the presence of these

conditions. The patient had a right-sided hemiplegia, but the hemiplegia was clearly not a causal factor in the joint change, for the paralysis had been confined to the right side whilst the affected joint was on the left. The patient gave a history of progressive mental impairment, shooting pains, and precipitate micturition. On examination there was found Argyll-Robertson pupil. Besides the signs of old hemiplegia, there was evidence of generalized spasticity. These occurring in a patient who has suffered from syphilis suggest a diffuse cerebral degeneration such as characterizes general paralysis of the insane.—(W. BILLINGTON and A. S. BARNES, *The Lancet*, July 1, 1905.)

Korsakoff's Disease.—By some the term Korsakoff's disease is applied only to such cases as conform to a pretty definite mental symptom-group exhibiting marked disturbance of attention and defective memory, with pronounced fabrications, and in addition in some cases, illusions of identity and hallucinations of sight and hearing. Others have grouped all cases of polyneuritis showing mental disturbances under the same heading and a number of cases have been reported as Korsakoff's psychosis showing little more than a toxic delirium. Between certain forms of prolonged delirium on the one hand and transient cases of confusion due to toxic causes on the other, there is, of course, no hard and fast dividing line. Some indeed have been disposed to regard all cases of this psychosis as a form of delirium. If this view is accepted, the number of cases so grouped becomes much greater. It would seem well, however, to limit the application of the term to such cases as conform fairly closely to the description first given. Most of the cases occurring in this country, at least, are alcoholic in origin. Korsakoff himself, however, while recognizing alcohol as the most frequent etiologic factor, reported 13 cases due to other causes. The disease is always toxic in origin. In rare instances the mental picture has occurred without the accompanying polyneuritic symptoms as the result of intoxication, in tuberculosis, typhoid fever and infections of the alimentary canal.—(R. V. PATTERSON and D. J. MCCARTHY, *American Medicine*, July 1, 1905.)

SURGERY.

Under the Charge of

MAX BALLIN.

Tubercular Cervical Lymph-nodes.—Summary of the exhaustive statistical report of 100 cases submitted to operation:

1. Tuberculosis of the cervical lymph-nodes is apparently due to infection received from the fauces, pharynx, or nasal mucous membrane, in the great majority of cases.

2. The disease shows a tendency to extend to the lungs and other internal organs. Statistics indicate that such extension occurs in one-quarter to one-half of the cases from whom the nodes are not removed.

3. Entirely apart from its tendency to infect other organs, the disease is very tedious, causes great discomfort and disability, and leaves disfiguring scars.

4. The thorough removal of the diseased nodes by operation has given better results than any other method of treatment which the writer finds recorded.

5. The records of operations justify the following assurances: (a) In favorable cases; safety of operation (many operators reporting more than 100 cases without mortality); a scar which is hardly to be seen; probable confinement to bed of two or three days; the wearing of a bandage or dressing from one and a half to three weeks; freedom from recurrence in about 75 per cent., and ultimate recovery in about 90 per cent. of the cases. (b) In the less favorable cases: Safety of operation; less disfigurement from scars than the discharging sinuses will cause; freedom from recurrence in 50 to 55 per cent., and ultimate cure in 70 to 75 per cent. of the cases.

6. Transverse incisions, either in the neck-creases or parallel to them, are usually to be used. They should be so placed that the fibres of the facial nerves will not be cut. A vertical incision back of the hair-line is occasionally helpful. Extensive incisions are necessary for the far advanced cases.

7. Every precaution should be taken to preserve the normal structures of the neck.

8. It is not feasible to divide the cases into groups, some suitable, others unsuitable for operation. Every case with tubercular cervical lymph-nodes should be operated upon unless there is a particular reason to believe that the operation would not be endured.—CHARLES N. DOWD, *Annals of Surgery*, July, 1905.)

Final Results in the X-Ray Treatment of Cancer, Including Sarcoma.—The results of the X-ray treatment of malignant tumors up to the present time have proven:

1. That the X-ray exerts a powerful influence upon cancer cells of all varieties, but most marked in cases of cutaneous cancer.

2. In some cases, chiefly in superficial epithelioma, the entire tumor may disappear, probably by reason of fatty degeneration of the tumor cells with subsequent absorption.

3. In a much smaller number of cases of deep-seated tumors, chiefly cancer of the breast and glandular sarcoma, tumors have disappeared under prolonged X-ray treatment. In nearly every one of these cases, however, that has been carefully traced to final result, there has been a local or general return of the disease within a few months to two years.

4. In view of this practically constant tendency to early recurrence, furthermore, in the absence of any reported cases well beyond three years, the method should never be used except in inoperable cases, or as a prophylactic after operation, as a possible, though not yet proven, means of avoiding recurrence.

5. The use of the X-ray as a pre-operative measure in other than cutaneous cancer is contra-indicated; (1) because the agent has not yet been proven to be curative; (2) because of serious risks of an extension of the disease to inaccessible glands or to other regions by metastases during the period required for a trial of the X-ray.—(WILLIAM B. COLEY, *Annals of Surgery*, August, Vol. XIII, 1905.)

Epigastric Linea-Alba Hernia as a Little Recognized Source of Abdominal Pain and of Gastric Symptoms.—D. D. Stewart (Philadelphia) says the occurrence of hernia in the linea alba above the umbilicus, hernia most frequently of small size and often only apparent on minute examination, and its importance as a source of gastric symptoms, has received far too little attention by both clinician and surgeon. These hernias are small, sometimes barely perceptible to the eye, and in other instances fairly evident on inspection. Symptoms are usually referred to the stomach, whence a diagnosis of some form of gastric disorder, gastritis, gastralgia, and even gastric carcinoma or gallstone may be made by the unwary. The apparent triviality of the protrusion, even if it does not escape recognition, often does not suggest itself to the physician as a likely source of the malady.—(*American Medicine*, July 29, 1905.)

GYNECOLOGY AND OBSTETRICS.

Under the Charge of

B. R. SCHENCK.

What may be done to increase the percentage of cures in uterine cancer?—At the meeting of the Gynecologic Section of the International Congress of Arts and Sciences, a committee was appointed to suggest what may be done to increase the percentage of cures in carcinoma of the uterus. This committee reported at the Portland session of the American Medical Association and its report should receive widespread attention.

After certain deductions regarding the importance, frequency, rapidity of growth, conditions of cure and symptomatology, the following suggestions are made:

A. The education of the general body of physicians in this affair may be furthered:

(1) By mailing, under separate cover, to each member of the A. M. A. a reprint of this report.

(2) By emphasizing on all occasions the importance of an immediate examination of all patients having symptoms resembling those of uterine cancer.

(3) By obtaining the assistance of university and other pathologic laboratories in the examination of bits of cervical tissue or scrapings. Such work should be done free of charge except when patients can afford to pay \$5 to \$10.

(4) By suggesting to the state boards of health the advisability of establishing a large number of stations throughout the country where a small bottle of 10 per cent. formalin solution, a mailing box, directions as to the removal of tissue and the address of laboratories where examinations are made, may be obtained.

B. The education of the laity, especially the women, can also be promoted. In Prussia, where the education of the women along these lines was attempted on a large scale, results already show a striking increase in the percentage of cases discovered early in the disease. The method employed there, i. e., advertising in the newspapers, is not considered advisable for this country. In other ways, however, much good may be accomplished.

(1) In the first place, the family physician should seek to inculcate, as far as possible, among his circle the necessity for early investigation of suspicious symptoms.

(2) In our large cities, where educative work

is done among the poorer classes by social settlements and other charitable organizations, lectures or informal talks should be given to mothers on this subject by district nurses, or by nurses at the head of hospitals, who are provided with the necessary information.

(3) The co-operation of such national organizations of women, as the "American Federation of Women's Clubs," should be sought with the view that lectures or informal talks be held before their individual bodies by trained nurses capable of explaining to them the symptoms and the necessity for early operation in uterine cancer.

A special committee of five was appointed to carry out these suggestions.

Abdominal pain from adhesions.—Cumston says that these pains have little conformity, sometimes being continuous, sometimes colicky; often they appear only from traumatic action or from a change in the bodily position. Reflexly, there may be nausea, hiccough, vomiting and anorexia. Often the pain is localized at one spot, where there may be circumscribed tenderness. A diagnostic point is the diminution in the severity of the pain after certain muscular movements.

Only those adhesions are painful which are inserted on the parietal peritoneum and are therefore liable to be stretched or pulled upon. When the stomach or intestine is involved, peristalsis causes pain and it is therefore greater after the ingestion of food.

Adhesions may be classified into gastric, intestinal and pelvic. In the gastric variety the pains are apt to radiate to the breast or back; in some cases, they result from the ingestion of food, again they are produced by a change in position.

The pain in the intestinal variety is usually in the form of colic.

The pelvic forms are best understood and give varying symptoms. Pain at stool, or on micturition or during menstruation are characteristic of periuterine adhesions. These patients complain of pain on both sides. McBurney's point is sensitive to pressure as is a similarly located point on the left.

Pains due to adhesions are never relieved by medicinal treatment. In the pelvic variety, massage may be efficient.—(*Albany Medical Annals*, May, 1905.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

Psoriasis.—Dr. Dreuw, assistant at Unna's clinic, Altona, Germany, reports (*Journal A. M. A.*, June 10), that he has used with great success the following ointment, the formula of which was first published by him in 1903, in the treatment of psoriasis:

R	Acid. salicylic	.....	5iiss	10
	Chrysarobin			
	Ol rusci. (birch tar),	ãã	....	5v 20
	Sapo virid.			
	Vaselin, ãã	.....	5viss	25

This combination contains, he says, keratolytic reducing as well as macerating and antipsoriatic remedies in rather large doses. His method of using it is as follows: For from four to six days the ointment is applied by the aid of a stiff brush to the affected area (after this has dried somewhat it is well to apply a starch or zinc powder). On the fifth or sixth day, the patient starts taking hot baths daily for from one to three days, and after the bath vaselin is to be well rubbed in from one to three times a day. This treatment, which covers eight days, may be repeated several times, according to the severity of the disease, but, as a rule, the psoriasis patches disappear soon after the first treatment. The ointment causes a marked scalling of the entire plaque, and the black crusts which become closely adherent after five or six days' treatment gradually loosen after a few days of bathing and inunction with vaselin or with zinc sulphur ointment. The application of this ointment causes an intense feeling wherever psoriasis exists and Dreuw considers it an indicator of areas of psoriasis. It also limits the chrysarobin irritation exclusively to the diseased area and causes no diffuse staining. For the best effects, the solid constituents of this ointment must be thoroughly rubbed together. For prolonged use with this ointment, he has prepared a material called mull, and finds it practically un-irritating. The use of these preparations is not limited to psoriasis, but they can be employed in other conditions where a special macerating effect is desired with the smallest possible amount of irritation. He has used it thus in trichophytosis and in local circumscribed dry eczema. It can be kept on six or eight days, after which any mild ointment may be applied.

Naevus Pilosus Pigmentosus and other Skin Lesions Treated with Liquid Air.—

W. B. Trimble points out the unsatisfactory nature of the usual treatment of nevi, especially of the hairy mole variety, and describes the very good results obtained in these cases by the use of liquid air. He believes that there is no doubt of the beneficial effect of liquid air in epithelioma, lupus, and naevus pilosus pigmentosus. In cases of naevus vasculosus there is slight improvement, but insufficient experience as yet prevents a more definite statement. The histories of eleven cases of these affections are given in brief, either cure or great improvement following the application of the liquid air. The fluid was applied by means of a pine or orangewood stick with a piece of absorbent cotton twisted around the end, and the effect produced depends largely on the degree of pressure exerted in making the application. Light pressure causes a slight reaction and inflammation, all that is needed in some instances (erythematous lupus, for example). Medium pressure will cause a superficial slough; this medium pressure is the kind called for in the hairy mole. Hard pressure will cause a deep slough (sometimes used on an epithelioma). A certain amount of scarring has followed in most cases, but the cosmetic effect has been far superior to the original lesion, and by careful application it may be reduced to a minimum. The liquid acts as a local anesthetic and the only sensation produced is one of slight tingling or burning—(*Medical Record*, July 8, 1905.)

The Hypodermic Use of the Salicylate of Mercury in the Treatment of Syphilis.

—E. F. Kilbane says that taking for granted that mercury in some form is indicated, we have, in the intramuscular injection of the salicylate of mercury a mode of administration that is free from most, if not all, of the difficulties encountered in the use of the drug when administered in the ordinary ways (mouth, inunction, vaporization, etc.), in that it is clean, safe, efficient, entirely practical for office or dispensary use, easy of administration, and capable of accurate dosage. No untoward results at Roosevelt dispensary (64 cases) have ever been noted, and only in one case did the patient complain of discomfort after any but the first few injections. The author recommends this treatment for trial in every case of syphilis in which the administration of mercury is indicated for a period of time. Its advantages are many, and its disadvantages few and slight.—(*Medical Record*, July 29, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

Tracheal Injection.—Mendel uses eucalyptol (5 to 10 per cent.) or gomenol (5 to 50 per cent.) dissolved in olive oil, considering menthol and creosote too irritating. His method of introduction is as follows: The operator with his left hand draws the tip of the patient's tongue outside the mouth, while with his right hand he holds the syringe properly filled (i. e. containing no air) and introduces the tube gently, in maintaining the arm in a horizontal position and passing over the lingual surface without touching it. The outside of the curve is then firmly applied to the base of the left faucial pillar, which is used as a support. The orifice of the syringe is directed toward the lateral wall of the pharynx. The contents of the syringe are discharged with force; in fact, the liquid must be projected against the lateral wall of the pharynx with sufficient force to turn round this wall, and thus reach the posterior wall, where it falls into the larynx.

Local Results.—I may particularize the three following local results of the tracheal injections, namely: (1) Daily cleaning of the larynx; (2) diminution or cessation of the cough and expectoration; and (3) improvement of the stethoscopic signs. (1) The injection is a veritable cleansing of the larynx, when phlegm too often remains and becomes dry—this is the frequent origin of tuberculous laryngitis, and even in cases of laryngitis the injection is a good remedy. (2) In four-fifths of the observations the gravity of the cough diminishes or ceases according to the case. At the same time, the expectoration becomes thinner and white and diminishes or even ceases altogether. As for the pyrexia, it is rarely affected. (3) In half of the cases I have been able to observe (a) expansion of parts of the lungs which did not expand before; in other words, the respiratory murmur becomes more audible in the apex where it had before been diminished. (b) Another stethoscopic result which I have repeatedly observed is that the tracheal treatment checks the abnormal secretion from the broncho-pulmonary surface, and this result has been characterized by the diminution or disappearance of the different rôles—subcrepitan, cavernous, or simply dry.—(*The Lancet*, July 15, 1905.)

Relation Value of Atropine and Homatropine as Cycloplegics. Conclusion: 1. That homatropine is not in any way as efficient a cycloplegic as atropine.

2. That the solution of one grain to the drachm, one drop in each eye every three to five minutes until eight to ten instillations are made, seems to be as efficient and safe a solution as any.

3. That homatropine usually, if not always, is inefficient in cases that suffer a great deal from eye strain, whether there be any indication of retinal or choroidal congestion or not.

4. That it is advisable to use homatropine in cases between the ages of twenty and forty where a cycloplegic is used (and this should be the rule), provided there are no marked symptoms of eye-strain, but at the same time it is advisable to inform the patient that the examination may be only tentative, and they may have to return for further treatment under atropine.

5. That the use of homatropine is especially indicated in cases that do not suffer severely, and have no time to lose from their work.

6. That homatropine is not efficient in children. Atropine is the most desirable cycloplegic to use with children, and should be employed in most cases. It is by giving accurate corrections in these cases that we are able to prevent intraocular diseases that might incapacitate the patient for life.

7. That homatropine has an unrivaled field in elderly subjects for dilating the pupils for more perfect fundus examination.

8. That homatropine is to be commended in troublesome cases near or above the age of forty, in which a long cycloplegic action is not desirable, to enable one to detect slight degrees of astigmatism by means of retinoscopy.—(*Wilkinson, Therapeutic Gazette*, July, 1905.)

Chloroform—Toxic Effect on the Liver.—Nothnagel pointed out that fatty degeneration of the liver occurs after the administration of chloroform Doyer (*Lyon Medical*, Feb. 26, 1905) gave a dog the drug by the stomach in doses of 25 to 50 cubic centimeters daily, and examined the liver after death, which occurred on the fourth day. He found that the organ contained about three times the normal amount of fat, and that there was considerable cellular necrosis throughout the organ.—(*Therapeutic Gazette*, July, 1905.)

BACTERIOLOGY AND PATHOLOGY.

Under the Charge of

H. S. OLNEY.

Malignant Tumors in Mice.—P. Ehrlich and Apolant have carried on extensive experiments on the propagation and transmissibility of malignant tumors in mice. Carcinoma can be transplanted from mouse to mouse and they have continued this to the sixtieth generation. They have been very successful in their inoculations as 80-100 per cent. of them were positive. The growth of these tumors is enormous and rapid. In many cases the weight of the tumor two months after inoculation has been equal to the weight of the mouse after removal of the tumor. They find that the original energy of growth is different in different families; and that the energy of growth increases with the number of inoculations.

One very interesting occurrence was noted by them, namely, a sarcoma originating on the soil of a carcinoma. According to their description, an adeno-carcinoma had been inoculated through nine generations. In the tenth generation it was found that spindle celled sarcomatous tissue was mixed with the adenomatous tissue, forming a mixed tumor. In the thirteenth to fourteenth generation, the cancer elements had disappeared entirely, giving place to a spindle celled sarcoma. Further experiments enabled them to repeat this peculiar transformation in other series, and they offer in explanation two theories:

1. The chemistry of the cancer cells are so changed by the successive inoculation that chemical irritants are formed which stimulate mesoblastic growth, and this gradually outstrips the epiblastic growth.

2. In the progressive inoculations, connective tissue was inoculated along with the cancerous growth (as it is difficult always to get *only* the cancer tissue), and these connective tissue cells in consequence of the numerous transplantations, eventually proliferated to tumor formation.—(*Berliner klinische Wochenschrift*.)

Lymphatic Drainage of the Faucial Tonsils.—It has already been proved that foreign bodies in the tonsillar crypts can pass through the epithelium into the interfollicular tissue. This depends on two factors: 1. The action of the muscles of the throat mechanically forcing them through; 2. The presence of a lymph current in the tonsil. Wood considers the lymphoid cells of the tonsils to be in constant motion, passing through from the follicles where they are formed,

in the direction of least resistance. This is most commonly toward the lymph spaces which terminate in the trabeculae of the tonsil and which in their turn empty into the efferent lymphatic mass and the deeper the crypts, the more readily do pathogenic germs pass through the tonsillar tissues to the tonsillar efferent lymphatics.

In order to determine the exact path of these efferent lymphatics Wood has adopted a method of injecting the tonsil similar to that of Gerota. He prepares his solution by rubbing together Berlin blue and spirits of turpentine to a thin syrupy liquid, adding a small quantity of ether and filtering through chamomise. He injects about 10 cc. into the tonsillar tissues. He is then able to trace the lymph vessels from the external portion of the tonsil through the peritonsillar connective tissue, the pharyngeal aponeurosis and the superior constrictor of the pharynx, and from thence, as one or two or more very small vessels, running obliquely in a downward, posterior and outward course, passing below the facial artery. Bending more posteriorly the lymph vessels next run between the internal jugular vein and the stylo hyoid muscle reaching finally the superior surface of an enlarged lymph gland placed just beneath the anterior border of the sternomastoid muscle where it is crossed by the posterior belly of the digastric. The efferent vessels from this gland are generally two or three in number and pass into the neighboring glands of the internal jugular group. Further anastomoses form a complete lymph channel through which the tonsillar lymph finally empties into the jugular trunk. In none of his cases did the fluid enter the superficial group of lymphatic glands except in one case—an aberrant gland lying on the facial artery near its origin. Clinically the glands which become enlarged during tonsillar infections appear to be superficial, but he thinks this is not really so, but is due to the deep glands being enlarged so as to be palpable.

The first gland to be enlarged (the one he has described above, at the anterior border of the sternomastoid) he has called the *tonsillar* lymph gland. He found it not enlarged in a child one week old, but in children six or more months old it is generally two to four times larger than any of the other glands and he considers this due to absorption of toxins through the faucial tonsils.—(*Am. Journ. Med. Sciences*, August, 1905.)

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Original Articles

THE ADMINISTRATIVE CONTROL OF TUBERCULOSIS.*

COLLINS H. JOHNSTON,
Grand Rapids.

Consumption is the most prevalent and the most fatal disease known at the present time, it being estimated that from one-seventh to one-sixth of all deaths, and one-third of the deaths between the ages of 15 and 45 are due to tuberculosis. In Michigan the mortality from this disease alone is greater than that from diphtheria, croup, typhoid fever, scarlet fever, measles, cerebro-spinal meningitis and smallpox combined; and it is estimated that in the United States 150,000 deaths occur annually from consumption. As Osler says "In more than 400 homes of this country there are lamentations and woe to-day; husbands for their wives, wives for their husbands, parents for their children, children for their parents. A mere repetition of yesterday's calamities. And if the ears of your hearts are open you can hear as I speak the beating of the wings of the angel of death hastening to the 400 appointed for to-morrow."

Owing, however, to the fact that thous-

ands of cases of tuberculosis recover every year, and that many who have the disease die from other causes, and also because many cases are not diagnosed during life, it is only by post mortem examinations that we get anything like a correct estimate of the extraordinary prevalence of this disease in the human race. Such examinations show that consumption is much more common than it was formerly supposed to be.

In 44,250 successive autopsies in Breslau in 1893, gross lesions of tuberculosis were found, in one-third. Biggs of New York found characteristic lesions in the lungs alone of sixty per cent. of his autopsies. Of these a little more than half died from this disease. The remainder recovered and in many instances had not known of its existence. Vrouardel found microscopic evidence of tuberculosis in seventy-five per cent. of his cases at the Paris morgue. Since many cases show lesions that can be seen with the microscope only, it is evident how difficult it is to form a correct estimate of the frequency of the disease. Exceedingly interesting statistics on this point have been obtained from the results of 500 autopsies made by Naegeli at the Pathologi-

*Oration on General Medicine, delivered at the annual meeting of the Michigan State Medical Society, 1905.

cal Institute of Zurich, as follows: Tuberculosis during the first year of life is seldom found. From the first to the fifth year it is infrequent. From the 5th to the 14th year one-third of all bodies are found to be tubercular. From the 14th to the 18th year tubercular lesions are found in one-half of all autopsies. From the 18th to the 30th year ninety-seven per cent. of all cases show tubercular changes. After the 30th year indisputable evidence of tuberculosis is found in ninety-nine per cent. of all autopsies."

From his work Naegeli reached the following conclusions:

"First, before the 18th year recovery from tubercular lesions is infrequent.

Second, in the third decade one-quarter of all cases show tubercular changes, which have completely healed. In the 4th decade two-fifths of all cases show lesions in which recovery has taken place.

From this time on the number of healed cases gradually increases until it reaches three-fourths of all cases at the age of 70 years." Necker, of Vienna, and Burkhardt, of Dresden, have almost duplicated this work of Naegeli's. Necker, however, believes that not all foci which are called tubercular by Naegeli were really such; but after eliminating twenty-three per cent. of the disputable cases it is safe to conclude, as a result of the work of these three men, that seventy-five per cent. of all adults at one time or another are subject to tubercular disease.

Hippocrates described pulmonary tuberculosis as a disease most difficult to treat and most fatal to the greatest number. Its contagiousness was recognized by various men throughout the middle ages, and in 1865 Villamen demonstrated by experiments on animals that tuberculosis could be transmitted from one individual to another. So that when Robert Koch in 1882 gave to the world his discovery of the tuber-

cle bacillus as the specific etiological factor in consumption, it is indeed remarkable that scientific men in general, and sanitarians in particular, did not at once institute a campaign for the eradication of this preventable disease. But, as Tennyson says: "Knowledge comes but wisdom lingers."

There is a great tendency on the part of physicians, as well as of lawyers and theologians, to pay undue deference to the teachings and writings of their predecessors, and to adhere to the traditions of their ancestors; and it is only in recent years that the medical profession has begun to make an earnest effort to take advantage of facts which have long been known, in an endeavor to eliminate the tubercle bacillus as a cause of death.

The communicability of pulmonary tuberculosis is now so well known and so generally recognized by the medical profession, that I will not take up your time with any arguments on this point. About ninety-six per cent. of all deaths from tubercular diseases are due to pulmonary tuberculosis, and it is generally believed that a large proportion of these cases are caused by inhalation of the tubercle bacillus, the *usual* source of which is the expectoration of consumptive persons. Sir. Wm. Broadbent echoes the sentiments of sanitarians throughout the world when he says that the prevention of the spread of consumption resolves itself into the destruction of the sputum of those affected with the disease, which we know retains its virulence for a long period of time. Outside of the body the bacilli are found most frequently in the dust of rooms which have been frequented by tuberculous persons, and it has been repeatedly shown that dust collected from hospitals, asylums, prisons, hotel bedrooms, private houses, etc., where consumptives have been, is capable of producing the disease in animals. Such

dust may retain its power of producing tuberculosis for weeks or months. In ordinary breathing expired air is free from bacilli. When talking, however, there is an invisible spray constantly emitted from the mouth, which has been shown to contain mouth which has been shown to contain tubercle bacilli. This is more apt to be the case in forcible talking, hawking, spitting, etc., and Flugge says this spray is a greater source of danger than the dry sputum.

Tubercle bacilli are seldom inherited. The germ may pass from a tuberculous parent into the foetus, which may then be born with tubercular lesions; but this has been seen so rarely that it simply enables us to affirm that the inheritance of the bacillus is not impossible. Although congenital tuberculosis has long been regarded as a curiosity, Osler says there are now twenty such cases in man on record, enough to show that inherited tuberculosis *does* exist. Tubercle bacilli *may* be present in the placenta of a tuberculous woman. In twenty examinations they have been found in forty-five per cent. of the cases, so that Welch believes tubercle bacilli may be present at birth in the offspring of a goodly percentage of cases of maternal tuberculosis. But for all practical purposes the sanitarian is bound to consider that tuberculosis is not an hereditary disease, and that every case arises under circumstances which can in a great majority of instances be theoretically if not practically prevented. In this connection I wish to quote the conclusions of the recent congress at Berlin. "First, tuberculosis is a communicable disease, due to Koch's tubercle bacillus acting on an organism prepared to receive it and unable to resist the bacilli when present in large numbers. Second, tuberculosis may be prevented by removing the source of in-

fection, by improving the environment, and by strengthening the individual. Third, tuberculosis in many of its severe varieties can be cured."

These propositions are now accepted as scientific truths. In certainty they may take rank with the laws of gravitation.

Although tuberculosis itself is seldom hereditary, there is a certain type of structure which has marked hereditary characteristics on account of which feeble resistance is offered to the invasion of the tubercle bacillus. The relative importance of the soil as compared with the seed has been much discussed. Many of the foremost scientific and clinical men to-day believe in the doctrine of predisposition. Long before Koch's discovery the tuberculous or strumous diathesis derived from inheritance was considered to play a very important part in predisposing to tuberculosis, and we are now also certain that such is the case. Experience teaches that vulnerability or predisposition to consumption runs in families. The same is true of measles, scarlet fever, and other infectious diseases. This individual or family susceptibility may be either inherited or acquired, and it is not always easy to distinguish between the influence exerted by heredity and that exerted by bad food, exposure to cold, foul air and other conditions which lower vitality and render the individual a ready prey when infected.

There can be no doubt that some infectious diseases, as measles and whooping cough, predispose to tuberculosis by rendering certain of the groups of lymphatic glands, such as the cervical and bronchial, a suitable soil for the propagation of the specific bacillus. Predisposition may pertain to the individual only, or to the entire race. Like rickets, tuberculosis among the natives of Africa is a comparatively rare disease. The same was also true of the colored people of the South before disenfranchisement. At the present time, how-

ever, a large proportion of the colored race in the South are affected, the death rate among them from consumption in some sections being three times that among the whites.

While the inhalation of tubercle bacilli is considered by most authorities as the chief source of pulmonary tuberculosis, there are not wanting those who consider other sources of infection as of paramount importance. Behring believes that the principle source of tuberculosis in human beings is the milk with which infants are fed, and that all cases of tuberculosis in adults originate from infection in infancy or childhood, thus attributing a large per cent. of cases to bovine rather than human tubercle bacilli. This is quite the opposite of the view expressed by Koch in his memorable paper in London, in 1901. Since then a great deal of work has been done by various investigators to determine the relation between human and bovine tuberculosis. It is now quite generally recognized that human bacilli may cause tuberculosis in cows, and there is already evidence enough on record to enable us to say that bovine tubercle bacilli may be found in children with tuberculosis. Kober, of Washington, has collected 85 cases of human tuberculosis due to infected milk. The part played, however, by bovine tubercle bacilli in causing tuberculosis is a most difficult one to determine. Welch stated many years ago that tubercle bacilli may enter the body without leaving any lesion at the point of entrance, and it is impossible to deny that a considerable proportion of cases of pulmonary tuberculosis may be due to infection from the gastro-intestinal tract. He also states that post-mortems show that forty to eighty per cent. of all cases of pulmonary tuberculosis have intestinal lesions, nor is it possible in all cases to tell which is the primary and which is the secondary lesion. Primary in-

testinal tuberculosis may be caused by bacilli entering the respiratory passages as well as the gastro-intestinal, and it has been shown by cultural as well as other experiments that in the great majority of cases of primary intestinal tuberculosis the bacilli are human, and not bovine. It will take a large amount of work to definitely determine in what degree Behring is correct in his opinion that infection in man is mostly through the intestines, and is contracted at a very early age, lying latent for years. But enough is known to warrant us in the conclusion that the State, which does so much to prevent the spread of other infectious and communicable diseases, should do more to limit the spread of this fatal disease by preventing the sale of milk from tuberculous cows. The exclusion from dairies of every cow which has demonstrable disease of the udder would form some approach to security; but as tubercle bacilli have so frequently been found in the milk from cows which are free from udder disease, and as such disease is so difficult of recognition in its incipency, I believe all cows responding to the tuberculin test are possible sources of danger, and the sale of their milk should be prohibited. The state should pass laws compelling a systematic inspection of all dairies and cowsheds within its borders, and of all cows whose milk is placed upon sale. Tests with tuberculin should be made, and the sale of any milk from a dairy wherein a tuberculous animal is found should be prevented by a prohibitive penalty until such animal is excluded from the herd. This does not mean, by any means, that all such animals should be slaughtered, for the method of treating tuberculous herds in Denmark, which has been thoroughly tried in parts of our own country, shows that the disease can be weeded out in a practical manner. The sale of re-acting animals

should be prohibited except for immediate slaughter, it often being possible to use the meat under certain conditions. Neither statistics nor experience indicate that tuberculosis is communicated to any great extent through the agency of meat, for the greatest diminution in the death rate of tubercular disease has occurred at those ages when meat is most largely consumed; and we know that tubercular deposits are very seldom found in those portions of the carcass which are sold for food.

It has been found also that animals affected in the earlier stages, which are kept under favorable hygienic conditions, will live frequently for years without the disease making any apparent headway, and the progeny of such animals is scarcely more liable to tuberculosis at birth than those of non-reacting animals. Such calves have in all cases at the Wisconsin Agricultural Experiment Station stood a tuberculin test without reaction, showing that tuberculosis in cows is contracted after birth rather than inherited from diseased mothers. If such calves are removed from the infected atmosphere and placed under good hygienic surroundings and fed on milk free from tubercle bacilli, they will not show any taint of the disease. Treated in this manner the labor of years spent in careful and selected breeding, and the large money values involved, are not needlessly destroyed.

Another conclusion to be drawn from Behring's work is that too much attention cannot be given to the conditions surrounding children during the early years of life, and that every effort should be made to improve their physical condition so as to enable them to withstand the inroads of tubercle bacilli which may have gained entrance to the body.

The most important sanitary problem of to-day is that of the eradication of pulmonary tuberculosis, but I do not believe that

proper measures for the suppression of this disease can ever be enforced until the public in general, and especially that portion of the people who either have the disease or are intimately associated with those suffering from it, become properly educated on this subject. And here I wish to state emphatically that I do not mean alarmed, but educated in a rational way; and it is for the purpose of enabling this to be done that I believe the State should insist upon compulsory notification of every case of tuberculosis. If good is to be accomplished it is not to be done by starting a panic, but by giving the people such a knowledge of this disease that they will know exactly where the danger lies. It should be impressed upon them that this is principally in one direction, namely—the sputum. It should be constantly kept in mind that it is the sputum, and the sputum alone, that is chiefly concerned in the spread of consumption. I think there is too great a tendency to the use of the word “contagious” in this connection, as it gives rise to needless alarm. The word “transmissible” or “communicable” is much better, and is far less disturbing to the people. The minute you use the word “contagious” in connection with a disease the mental image formed is that of acute contagion such as exists in smallpox, scarlet fever, measles, etc.

Consumption differs from these diseases in this important particular, that whereas in the latter infection is almost entirely beyond the control of a person, in pulmonary tuberculosis it is limited to the sputum, the disposal of which can very easily be controlled.

While consumption is always the result of infection, it is far less readily communicated than the diseases just mentioned, which are transmissible from individual to individual by immediate or direct contact, for which the word “contagious” should be reserved. The popular idea of a contagious disease is

one from which there is no escape except by keeping away. When you proclaim a disease to be contagious, people will pay no attention to the conditions of safety which you may lay down, and social ostracism is sure to follow. Isolation, however, or any form of personal restraint upon consumptives who will faithfully follow and carry out a few simple measures for rendering their sputum innocuous, is entirely unnecessary. With these precautions there is practically no danger from even intimate association with such people. The most certain method of getting correct information as to the etiology, dissemination and prevention of consumption into the hands of the people who need it, is for each and every case of tuberculosis to be reported to those whose business it is to look after the sanitary affairs of the State. As far as immediate prevention itself goes the notification of the pulmonary form of the disease alone would suffice. Several forms of tuberculosis, as hydrocephalus and meningitis, cannot be called infectious in any sense, neither can tubercular glands, bones or joints communicate disease until a discharge is established. But in order to enable us more thoroughly to study its life history and manner of dissemination, all forms of tuberculosis should be brought to the notice of the health authorities. People must be taught that consumption is by no means a necessarily fatal disease, but that on the other hand, a large majority of cases, if taken in time, can be cured. It is to the interest of both the patient and his healthy neighbor that the former be informed of these facts. Post mortem examinations show that from forty to eighty per cent. of cases of consumption have also intestinal lesions, and the chances of recovery are by them greatly reduced. People should be taught that these lesions may in great part

be prevented by immediate disinfection of the sputum. A consumptive who is well on the road to recovery may diminish his chances of regaining health by self-inoculation if he does not exercise the greatest care in destroying his sputum; and the fact that any consumptive may be a source of danger not only to himself but also to his associates if his sputum, which may contain from one to four billion bacilli per day, is not destroyed, should make him doubly anxious for correct information on these points.

Every one now agrees that enforced registration is necessary. Without this any other scheme for the restriction of consumption is useless.

The city of New York inaugurated a system of notification in 1893. For several years public institutions only were required to report cases coming under their supervision; private physicians were simply requested to do this. But in 1897 regulations were adopted requiring the reporting of all cases of tuberculosis, the same as of measles, typhoid and scarlet fever. Since then continuous pressure has been brought to bear upon physicians to report their cases, until at the present time there is no serious opposition to this regulation in or out of the profession. In fact, less trouble is now experienced in the sanitary supervision of tuberculosis than in that of any other communicable disease. In 1904, 19,000 cases were reported in New York City, and 7,000 in the first four months of this year. Investigation has shown that nearly ninety per cent. of the deaths returned as due to tuberculosis have been previously reported to the department of health as suffering from tuberculosis, so that the regulation is quite generally observed by the physicians of that city.

The result of this and other measures for the control of the disease has been a more rapid fall in the tuberculosis death

rate in New York City than in any great city in the world, namely: from 29.1 per 10,000 in 1892 to 22.8 per 10,000 in 1902, being a much more rapid decrease in the death rate from tuberculosis than is found in such cities as Baltimore, Philadelphia, and St. Louis, where no special efforts were made against the disease during those years.

The economic loss to the State from tuberculosis is very great. Dr. H. W. Thomas, of Chicago, has estimated that the loss in money invested in the raising of children who die yearly in the State of Illinois under the age of 20 years from consumption is \$1,181,800; the loss from inability to work on the part of those sick from consumption, \$30,000,000; the loss of savings of those who die before the end of the producing age, \$5,139,000; the care of sick and helpless consumptives, \$225,000; making a total loss to the State of Illinois from consumption of \$36,000,000 per year. These estimates are based on absolute statistics gathered by the Illinois State Board of Health in 1902 and 1903. The population of Michigan is one-half that of Illinois, and the death rate from tuberculosis is about five-sevenths of that of Illinois, so that it is fair to presume that the cost to the State of Michigan every year from consumption is about \$15,000,000.

Dr. Frederick L. Hoffman, actuary of the Prudential Life Ins. Co., has made some interesting estimates of the loss to the United States each year from this disease. "Tuberculosis causes annually more than 150,000 deaths in the United States at the average age of 35 years. At this age the normal after-lifetime is about 32 years, so that the real loss of life covered, measured in time, is represented by \$4,800,000 years per annum. If we estimate that the net value of a year of human life, after 35, is at least \$50, the real loss resulting to the United States from this disease—a large

proportion of which is known to be needless—may be estimated at \$240,000,000 per annum. These astounding and almost incomprehensible figures are far from being an exaggeration, but assuming that only one-half of this mortality is preventable we have a net loss to the State of \$120,000,000 per annum. This estimate does not take into account the social, moral and sentimental value of at least 100,000 lives, which under different conditions might reasonably hope to continue for many years."

Thirty-two years ago the Michigan State Board of Health was organized, and since that time the death rate from consumption has decreased from 112 per 100,000 inhabitants to 86 per 100,000 inhabitants in the five year period 1898 to 1902. Owing to the imperfect registration under the law then in force, Dr. Wilbur chief of the Division of Vital Statistics in the Department of State, assures me that the rate of 112.1 per 100,000 ought to be increased 40 to 50 per cent. A very interesting fact in this connection is that about one-half of this remarkable diminution in deaths from consumption in Michigan has taken place in the last ten years, during which time the Board has been conducting a special campaign of education against the disease. If to the measures already instituted could be added those other measures for the restriction of the disease which sanitarians have evolved in recent years, it is estimated that in fifty years consumption would be practically eliminated as a cause of death in Michigan. It must not be overlooked in this connection, that the decrease in mortality of this and other communicable diseases since the organization of the Board has resulted in a very great saving to the State, amounting in the case of consumption to \$583,000 in the year 1903; \$176,000 for smallpox; \$301,000 for typhoid fever;

\$298,200 for scarlet fever, etc., estimating the value of an adult life at \$1,000 and a child's at \$300. I would not have you infer that I believe the whole of this decline in the death rate from consumption in this State has been the result of the efforts of the State Board of Health, for many other factors have undoubtedly contributed to it, such as a profound change for the better in the mode of life of the people. But the great and rapid fall in the death rate from tuberculosis in the city of New York which is ascribed to the direct results of the application of modern sanitary methods of prevention, warrants us in the belief that the pioneer work done by the Michigan State Board of Health in the prevention of tuberculosis has been more or less directly responsible for the pronounced decline in mortality from this disease since 1891.

Another important administrative measure for the control of tuberculosis is the early diagnosis of all cases, and to that end boards of health throughout the State should make free examination of all samples of sputum sent to them. One of the most important problems in the restriction of this disease is the early recognition of the individual case, and one of the most important of the early diagnostic signs is the recognition of the presence of the tubercle bacillus in the sputum. A large percentage of cases can be diagnosed, by an expert, with a high degree of certainty before the bacilli appears; but for the general practitioner an absolutely certain diagnosis rests upon a demonstration of tubercle bacilli in the sputum. The proportion of physicians who make such examinations is relatively small, and it is surprising to see how many cases of consumption are treated from the beginning to the end without any sputum examination whatever. Experience in New York City has shown that by offering free examina-

tions of sputum many cases of consumption are brought early to the attention of the authorities, thus affording an opportunity for early educational efforts. The ordinary coughing consumptive expectorates from one to four and one-half billions of tubercle bacilli a day, and early recognition of such cases is a matter of great importance from a sanitary standpoint.

One of the most important of the prophylactic measures for the restriction of tuberculosis is the establishment by the State of special hospitals for the management of indigent cases of the disease, and I believe that the time will come when every large community will have in its immediate vicinity a hospital for the care of its consumptive poor. These sanatoria should be of two kinds; one for the treatment of incipient cases, and the other to afford shelter for incurables, homes for advanced cases which are often confined to rooms whose surroundings are hygienically bad, and which are daily becoming worse by reason of the absence of those special precautions which are so necessary to prevent the spread of the infection. The care of these hopeless cases is quite as much a part of the duty of the State as is the treatment of those in the early stages of the disease, as cases in the later stages are those from which the disease is most often spread; and every county in the State should have either in connection with its poor house, or elsewhere, a properly equipped ward for the care of the hopeless cases.

Formerly climate was looked upon as the most important factor in the treatment of consumption, but the experience of special hospitals all over the world, in all sorts of climates, has shown that tuberculosis may be successfully treated anywhere, that pure air, sunshine and pure food are the essen-

tial features in its treatment. Moreover, cures accomplished in the home climate are perhaps more lasting and assured than when attained by temporary residence elsewhere.

Some sanitarians claim that seventy per cent. of incipient cases recover. At the Massachusetts State Sanatorium, at Rutland, in the year 1900 seventy-three per cent. of the incipient cases were arrested and apparently cured; in 1901 seventy-eight per cent.; in 1902 seventy-two per cent.; in 1903 seventy-three per cent.; in 1904 seventy-six per cent. During the last 15 years sixty-eight per cent. of Trudeau's incipient cases have been cured or the disease arrested, but only eleven per cent. of his advanced cases. So that we can safely estimate that proper treatment in sanatoria will cure from sixty to seventy-five per cent. of incipient cases of consumption. Cures in moderately advanced cases are infrequent, while advanced cases are seldom permanently benefitted. Incipient cases only should be received into a State sanatorium, and it should be distinctly understood that these institutions at the present time are not homes for incurables. The Massachusetts State Sanatorium rejects, as a rule, the following class of cases:

1. Those who are bed-ridden or confined to their rooms.
2. Acute cases, with high fever; cases whose temperature will not reach 100 degrees in the afternoon after two weeks treatment.
3. Advanced laryngeal cases.
4. Those with chronic diarrhoea, kidney disease or any other serious complication.
5. Neurotics.
6. Confirmed dyspeptics.
7. Those with marked dyspnoea on slight exertion.
8. Neurasthenics, or those with marked insomnia.

9. When a large part of one lung, or when both lungs are involved.

10. Cases with decided emphysema or bronchitis, which should seek a warmer climate, although all cases at Rutland in general do better in cold weather.

11. Children under 14 years of age, and adults over 50.

The usual stay at the sanatorium is six months; no case is permitted to remain at Rutland beyond one year.

Acceptable cases are:

1. Those with tubercle bacilli in the sputum, no matter how well they look, and cases before any expectoration whatever is present.

2. Afebrile cases. These are considered the most desirable. The first attempt at the sanatorium is to bring the temperature to normal.

Dr. Bowditch likes to get cases before cough, expectoration, or haemoptysis are present, although cases which have had haemoptysis are accepted as readily as others if the heart is normal. He considers haemoptysis a good thing in the early stages of pulmonary tuberculosis if it is not frequently repeated, but bad in all late cases.

In spite of the great care on the part of the state examiners for Rutland a majority of the cases treated there since the sanatorium was opened have not been really incipient cases.

Among other administrative measures for the control of tuberculosis which have been found useful by the New York City Board of Health are educvational measures consisting of circulars of information for consumptives and those living with them, printed in many different languages; the public press is utilized to a very large extent in the dissemination of knowledge as to the nature of tuberculosis and means to be adopted for its prevention. Doctors and nurses are sent to the homes of consump-

tives (unless the reporting physician especially requests that no such visits shall be made) to give instructions and to leave printed circulars for the information of the patient and the family; to gather data as to the history of the sick person, the number of cases of tuberculosis which have occurred, the sanitary condition of the premises, the precautions being observed, and the possible need of any further interference on the part of the authorities. Rooms or apartments which have been vacated by consumptives, either by death or removal, are disinfected or renovated. Hospitals for the care of consumptive patients are maintained and a special clinic and dispensary for the treatment of pulmonary tuberculosis is conducted.

During the past two or three years anti-tuberculosis societies have been formed in eighteen states in this country which have for their object the education of the public as to the prevention and cure of tuberculosis. In the month of March the Grand Rapids Anti-tuberculosis Society was organized, for the purpose of combating the spread of tuberculosis, to better the condition of persons suffering from it, and to promote their recovery:

1. By enlisting the co-operation of the people in general, the medical profession, and nurses in fighting the disease, and preventing the infection of well persons.

2. By investigating the causes of the prevalence of the disease, and by collecting and publishing useful statistics.

3. By disseminating information:

- a. To those suffering from the disease as to the best treatment and means of help.

- b. To those who come in contact with the disease as to the prevention of its spread.

- c. To the public as to the subject in general, and its bearing on the social life of the community.

4. By advocating the enactment of proper laws for the prevention of the disease.

5. By the advancement of movements to provide special hospitals, sanatoria and dispensaries for consumptives, and also by endeavoring to secure better care of consumptives in their homes through co-operation with the District Nurse's Association and the Charity Organization Society.

6. By co-operating with the public health authorities, the National Society for the Study and Prevention of Tuberculosis and other organizations, in measures adopted for the prevention of the disease.

During its brief existence it has already accomplished some useful things. At its suggestion the common council has resurrected an anti-spitting ordinance which has long been slumbering in one of its committees, and we hope to see it soon become a law. It has induced the Board of Health to require physicians to report all cases of consumption to the Health Department; a circular letter has been issued by the Board to all physicians of the city, requesting them to co-operate in this matter, and many cases of consumption have since been put on record. The society has agitated the dust nuisance question, along with the Board of Health, and as a result municipal street sprinkling has been instituted in three wards of the city, and before the summer is over it is expected the entire city will be covered. At its suggestion the Grand Rapids Board of Health has offered to make free examinations of all specimens of sputum sent to it. It has gotten out a large number of circulars for distribution to consumptives and has already given a number of popular lectures on consumption to various societies in the city, and has arranged for a large number of these lectures for the coming year.

It sent a delegation to Lansing to plead

for a State Sanitorium, headed by the mayor of this city, who, having been a very active candidate for the Democratic nomination for governor last year, made a deep impression upon the legislative committee. It has secured the hearty support of the newspapers of the city in its campaign.

Now, in addition to its expenditures in maintaining the State Board of Health, what is the State of Michigan doing directly to restrict the ravages of this deadly disease, and to prevent such an enormous loss of life and treasure each year? Almost nothing. In the year 1903 the various townships, villages, cities and counties of the State expended \$143,156 for the care of indigent persons sick with smallpox, which is about the least important of the diseases which endanger the public health, and \$1,347 for the care of those sick with con-

sumption, the most important of the diseases which endanger the public health. In a recent paper on consumption the late Frank Wells, for many years president of the Michigan State Board of Health, and a sanitarian with a national reputation, said: "Each one of these deaths was preventable; each one that is to follow will have been; and the responsibility for them will rest upon those, who, having the knowledge and ability to save, fail to act."

Here, then, is a disease which is constantly with us, manifestly preventable, and which at one time or another attacks a large proportion of the human race, concerning which the State has shown a neglect of sanitary laws that is almost criminal; and the question of the hour is: What is the State of Michigan, and the various cities and counties within its borders, going to do about it?

TREATMENT OF OPHTHALMIA NEONATORUM.*

EUGENE SMITH,
Detroit.

I do not propose to enter into the symptomatology or etiology of ophthalmia neonatorum, but to call to your notice a successful method of treatment, one feature of which, and in my mind an important one, is entirely ignored in all text books. Let me say at this time that I think it entirely unnecessary ever to lose an eye from this disease, if the physician sees the case before the cornea becomes affected. Notwithstanding our present knowledge of the pro-

phylaxis in these cases, I fear too little attention is paid to it by some members of our profession, and there are still too many cases of irremediable blindness occurring. However, it is the treatment I wish to speak of.

First, with regard to cold advised by many. It is understood that by means of cold compresses the heat of the inflamed parts is continuously removed, and not merely a high temperature interchanged for a lower one, as is the case where the compresses are so seldom changed that they become warm before replaced by fresh ones. Such contrasts are harmful. Prolonged and improper use of cold applications may cause inflammations as an after effect, not

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only at the seat of application, but also at some distance. Infants do not bear long continued abstraction of heat well. Carelessly used, excoriations, even erysipelas, bronchitis and pneumonia may occur. Hence I take the ground that not only is the application of cold dangerous, but unnecessary.

Also objectionable and harmful, in my opinion, is the frequent irrigation or washing of the conjunctival sac—every fifteen or thirty minutes. A well known axiom in surgery is *rest*, and the frequent manipulations of the parts necessary to carry out this proposition prevents rest, is of doubtful value, carries with it a modicum of danger from the possibility of removing a bit of the epithelial layer of the cornea, favoring ulceration—a condition to be avoided. The same may be said of the practice of separating the lids and with a bit of gauze or cotton wipe off the discharge. This danger is increased and made more easily possible by the maceration of the epithelial layer of the cornea by the discharge retained in the conjunctival sac on account of the agglutination of the lids, and herein lies a most important part of the treatment, in fact my *raison-d'être* for presenting this short paper.

Who, in treating cases of this kind, when the lids have been separated, has not seen the discharge to the extent of possibly a half teaspoonful or more flow out onto the cheek, due to retention from the sticking together of the lids? Not only is softening of the epithelial layer of the cornea favored by the retention of the secretion, but the pressure due thereto is also baneful and endangers the circulation of the cornea.

Prevention then of sticking together of the lids is one of the main, yes one of the most important parts of the treatment. It is simple and easily carried out by the nurse or mother. Simply besmearing the whole

external surface of the lids *including the edges* freely with any bland aseptic or mildly antiseptic ointment, and keeping them well covered with it constantly is the point. The discharge will then flow out onto the cheek and can be gently removed by rubbing with a bit of gauze, and more ointment applied immediately.

The usual daily application of silver nitrate one to two per cent. solution, or what is perhaps most frequently used now days a fifty per cent. solution of Argyrol, two or three times a day, to the everted lids or freely dropped into the conjunctival sac will fill the bill.

I have been surprised that this simple method of replacing the washing process has not been given the place it merits in the text books. I have followed it and taught it for years, and consider it one of the sheet anchors of success in these cases. A very gentle rotary massage of the upper lid will assist greatly in removing the discharge from the sac, and may be done just before the free application of the solution of Agyrol or protargol, if either of these painless solutions of silver are used. Solutions of nitrate of silver are best made to the everted lids. In whatever strength used it is painful, producing considerable irritation and much crying of the infant.

If haziness of the cornea or ulceration has occurred a one-half per cent. solution of atropine sulphate may be used in conjunction with the above treatment.

Treatment of a Xanthoma of the Lips—No

method of treatment gave satisfactory results until the author began the use of the high frequency spark, which gives good results, with slight pain and rapid effects. Most of the patients so far treated were also syphilitic. The author uses a static machine and a hyperstatic transformer, a large carbon electrode, a spark gap of two inches, and a contact spark of about an eighth of an inch. Two or three sittings are sufficient. —(C. W. Allen, *Medical Record*, September 23, 1905.

FREQUENCY OF ECTOPIC PREGNANCY.*

JAMES A. KING.

Manistee.

Several years ago I suggested to an old classmate that I would be pleased to receive any operative cases he might wish to refer.

The idea struck him *very* unfavorably but afforded him an opportunity to voice his opinion of what he called "Surgical fads." With him appendicitis was a "Fad." I shall always remember the self-assurance with which he said "I never saw a case." Bigotry, which masks so easily under the honorable cloak of conservatism, has always done more harm to humanity than radicalism in all things moral, political or economic, and medicine is no exception to the rule. This so-called conservatism of my old friend is a menace to public health in diverse ways. It is these conservative medical men that treat consumption with cod-liver oil, iodid of potash and whiskey and feel a comfortable satisfaction that all has been done that could have been done, when the funeral cortege of the patient wends its way to the cemetery. This kind of conservatism counsels delay and poultices for a felon, and breast milk for ophthalmia neonatorum. Its votaries do little surgery except fractures and dislocations; these they attempt with all the confidence with which they deny the possibility of gall-stones without jaundice. The votaries of this kind of conservatism scout the notion that ectopic pregnancy occurs any oftener than we were taught it did twenty-five years ago.

But there is a broader more numerous

and admirable, progressive class of earnest, conservative men, who believe ectopic gestation is very rare. It is unnatural to look very closely for that we do not expect to see, and therefore the frequency or infrequency of any pathological condition becomes a matter of great importance. It is my opinion that ectopic gestation is a common disaster; that it is important to emphasize its frequency, and that this has been inadequately done by authorities.

When we consider that some works on gynecology written fifteen years ago ignore the subject altogether, it is not strange that there is a wide spread belief that it seldom occurs. Skene in his treatise on Diseases of Women published in 1890 treats exhaustively of haematocele, but does not mention ectopic gestation except to refer it to the obstetrician. He gives a long list of causes for haematocele outside of tubal pregnancy. Diseases of Women by Thomas and Munde published in 1891. treats of haematocele and extra uterine pregnancy exhaustively in separate chapters; they do not apparently connect the two in causation but on the contrary, page 502 chapter on haematocele says: "As, however, the source of the hemorrhage which results in the bloody tumor very often cannot be ascertained, we are forced to deal with its most prominent and significant sign, taking this as an exponent of a state which is beyond the possibility of diagnosis." Clinical Gynecology, Keating and Coe, published in 1897, treats of ectopic pregnancy and haematocele under one head and, properly it seems to me, refers to haematocele, outside of tubal pregnancy, as a condition rarely demanding interference.

*Read before the section on Obstetrics and Gynecology at the annual meeting of the Michigan State Medical Society at Petoskey, June 30, 1905 and approved for publication by the Committee on Publication of the Council.

Kelly in his *Operative Gynecology* published in 1899 page 434 quotes A. Martin as having had seventy-seven cases coming under his personal observation, and says that he (Kelly) has seen twenty-three cases of extra uterine pregnancy in one thousand celiotomies. Now I have seen eleven cases in one hundred and twenty-five celiotomies, and all but one occurred since 1901. I have known of several more that have been operated on in my little town during this period. It does not seem reasonable to me that we have had an endemic of ectopic gestations, but that we recognize more of those we have had. The reason Howard Kelly saw but twenty-three cases in a thousand celiotomies previous to 1899 was because they were not recognized by the general practitioner and sent to him for operation. Doubtless he has seen more than twenty-three cases every year since that time. The lack of literature on the frequency of this abnormality naturally increases the liability of their being overlooked.

Recent statistics regarding the frequency of this accident seem to me very hard to obtain. Like most country doctors my reading is limited to what books I can buy from agents, but nothing on this subject has been offered to me. During the same period that I have seen ten of these eleven ectopic pregnancies, I have operated but twelve times for appendicitis in females exposed to pregnancy, i. e., I have operated almost as many times since 1901 for ectopic pregnancy as I have for appendicitis on females between puberty and the menopause. Of course almost every doctor now operates for appendicitis, while they are more apt to refer ectopic gestations, but it seems highly probable to me that the time will soon come when authorities will consider the exposed female, (between puberty and the menopause) about equally as liable to have tubal pregnancy as appendicitis. When we con-

sider the anatomical arrangement of the uterine appendages; the prevalence of gonorrhoea and miscarriage, with their consequent inflammations, and the number of opportunities for this accident to occur in the exposed female, covering such a long period of time, it does not seem to me that this view can be a very radical one.

The following six cases illustrate the liability of this condition to go unrecognized, having been sent to me by their medical attendant supposed to be suffering from some other disorder. The other five were recognized and operated on from a few hours to a day after rupture, and all recovered.

Case 1. Mrs. B. This patient had been treated with pessaries, douches, tampons, etc., for months. Prolonged sepsis had rendered her condition extremely critical. I operated as a forlorn hope, and found a large suppurating haematocle, with placental tissue at the bottom, still partly intact. The patient died of sepsis three days later.

Case 2. Mrs. P. Treated for two weeks for threatened miscarriage. At the end of that time her condition became very grave, and I was called and found her almost in a state of collapse. Operation disclosed a ruptured Fallopian tube containing placental villi. Recent adhesions showed that the hemorrhage had occurred in spurts at different periods, and the history indicated that the first rupture occurred two weeks before I operated. The patient recovered slowly on account of her very anemic condition.

Case 3. Mrs. H. Treated four weeks for threatened miscarriage. She expelled a foetus about ten days before I saw her. On operation I found a ruptured tube clear into the body of the uterus, and the hemorrhage was difficult to control. Whether this was a case of interstitial pregnancy, or a case of twin pregnancy, one uterine and one tubal,

I never knew. A large clot in the abdomen was already suppurating. Macroscopically villi were attached to the ruptured tube. The patient was septic at the time of the operation, and died a few days after.

Case 4. Mrs. A. Brought to me for operation for an undiagnosed pelvis disorder. The remains of an old haematocoele with ruptured tube, I found had been the cause of suppuration. The patient recovered.

Case 5. Mrs. C. Sent for to operate for appendicitis. I found the abdomen full of blood, both old and new clots, and the ruptured left tube slowly bleeding. The patient recovered.

Case 6. Mrs. H. Sent to me for some obscure ovarian trouble. I advised immediate operation for a ruptured tubal pregnancy. I found the abdomen full of partly organized blood clots, and a ruptured right Fallopian tube; also chronic catarrhal appendicitis. Death occurred on the eighth day from acute suppurative nephritis as revealed by post mortem.

Thus six of the cases operated on were unrecognized—yet the diagnosis of tubal pregnancy is not difficult if we had not been taught that ectopic gestation was so rare that we do not look for it.

In addition to these cases operated on I have seen several others I did not operate on. One, after a long period of sepsis, had rupture and discharge of sac and apparent foetal remains into the rectum, but I have excluded all these because the diagnosis was unconfirmed by operation or post mortem.

To my critics who deny that these cases operated on were cases of ectopic gestation, because no ovum was discovered, I wish to say that I have never yet lost time by searching among clots for a six-weeks or two-months foetus. In one case where the patient was almost moribund from hemorrhage, rupture occurring only a few hours

before operation, no blood whatever was removed, except that which spurted out through the incision. Both ovaries and tubes were ligated and removed, and the abdominal wound sutured all in seven minutes. The patient recovered. I think if I had prolonged the operation any she would have died on the table.

Deny that these cases are ectopic pregnancies if it pleases you. Call them haematocoeles or by any other name. It is a case of "The rose will smell as sweet," etc. I am satisfied that they were tubal pregnancies, but the important point is that these cases occur frequently not rarely, and require early recognition, and usually immediate surgical interference.

Since this paper was completed I have learned that a case recently referred to me by Dr. Ramsdell in which we both made a diagnosis of probable tubal pregnancy, has been operated on in Ann Arbor, and the husband reports that it was a case of "Extra uterine pregnancy."

The Treatment of Eczema and Impetigo in Children.—C. W. Allen says that although many cases of infantile eczema depend on improper feeding, and faulty digestion or assimilation, the majority are susceptible of cure by local measures alone. In general it may be said that symmetry of lesion speaks for constitutional origin, asymmetry for local cause. Among general local measures to fulfill the objects of disinfection, protection, soothing and favoring the growth of new epidermis, the use of methylene blue solution is especially advocated. A three to five per cent. watery solution is allowed to dry in well and a thin layer of collodion is quickly applied. Nitrate of silver in five to twenty per cent. strength, salicylic acid, resorcin, sulphur, ichthyol, etc., are also recommended and the indications for their use in different cases described. Impetigo contagiosa according to the author is frequently associated with pediculosis capitis and in treating it the parasites should be sought for. Crusts are to be removed with potato flour poultices and ten per cent. ammoniated mercury ointment applied, or green soap solution followed by 1-1,000 bichloride of mercury. Ichthyol, salol, beta naphthol, sulphur and red sulphide of mercury are also useful in some cases.—(*Medical Record*, May 20, 1905.)

THROMBOSIS OF ANTERIOR TIBIAL ARTERY IN GUN SHOT WOUND.*

L. W. GARDNER,
Harbor Springs.

On Sunday morning, February 5th, 1905, in the midst of a fearful blizzard which had lasted for a week blockading the roads to almost an impassable condition, I received a hurried message, sent by telephone from the nearest station some six miles away that a lady had been accidentally shot and was bleeding to death, to come quick.

I hurriedly prepared my grip with what I thought I would need, viz: surgical instruments for minor surgical work, anaesthetic bandages, etc., and with my buggy case containing some 54 remedies, donned my heavy fur coat and fur robes, ordered my horse and started in the direction of the call which was 16 miles distant.

The call came at 10.00 o'clock a. m., the accident occurred some two hours before, the messenger being on the road two hours before he could reach me by 'phone. I drove my horse as best I could, but made slow progress as the roads were filled full of heavy snow drifts. I, however, reached my destination at about 2.30 p. m. and found the situation as follows:

A lumber camp where a half-dozen men were employed getting out cedar timber living with a family of five persons: father, mother, two daughters and grandmother, the latter a lady of 62 years of age, of stout build, weighing probably 190 pounds, the victim of the tragedy. Among the hired help was a young man about 17 years of age, who after breakfast that morning had

taken down his shot gun from where it was kept, had cleaned, oiled and was loading it with shells when it was accidentally discharged, the muzzle of the gun pointing downward and across from where he was sitting and in exact range to where the grandmother was standing helping about the morning work. The gun was fired at close range, probably not more than six feet away, the charge taking effect on the lateral or external surface of right limb just above the ankle joint, cutting away both tibia and fibula, the tendons and muscular tissue, leaving the foot attached only by small pieces of skins, the blood vessels being severed, the wound had bled profusely and continued to ooze until I arrived some six and one-half hours after the accident.

On arriving I found the woman lying on the floor with blankets under and over her freely saturated with blood, a large pool of blood which had ran across the floor and under the bed. The woman was faint and still suffering from the shock. I at once examined the injury as to its nature and extent. I soon found I was not prepared to do what was necessary for her there, furthermore, the patient had not sufficiently recovered from the shock to justify an amputation at that time, so after making my patient as comfortable as possible by putting the limb into a temporary dressing, I commenced preparation for her removal to the nearest hospital, 28 miles distant.

I found it impossible to leave camp with the patient before morning, as darkness and night had overtaken us, with a fierce storm still raging outside, but as the grew dawn of early morning lit up the dense wood, we were on our way to Pellston, the nearest

* Read before the Section on Surgery, Ophthalmology and Otology at the annual meeting of the Michigan State Medical Society at Petoskey, June 28, 1905, and approved for publication by the Committee on Publication of the Council.

railway station, awaiting the first train to Petoskey.

On arriving at Petoskey, thence to the hospital, we called up Drs. Calkins and Oven to see the case and also to assist in the operation which was at once performed, i. e., an amputation of the limb just above the ankle joint. The patient had stood the journey remarkably and was in a much better condition physically than the night before.

The hands of the operator and assistant were thoroughly cleaned and rendered aseptic, all instruments boiled and ligatures and dressings freely sterilized, the wound was carefully and strenuously treated antiseptically before closing the flaps. In ligating the vessels, the posterior tibial and peroneal arteries were taken up first, these vessels bled quite freely, contained the normal elasticity of the artery, but in taking up the anterior tibial artery, it was found empty and collapsed. We removed our compression on the vessel, but the blood refused to start, and mention was made of this at the time, as it seemed strange to us and something I had never witnessed before, for an artery not to bleed when incised and the end of the vessel in plain sight, but nothing was done other than to ligate the vessel, sponge off the surface of the wound and bring the flaps in apposition, insert a drainage tube in outer angle to the flap and introduce our sutures.

All seemed to go well for the first 48 hours, when up came the temperature 102 degrees, then 104 degrees Fahrenheit and still advancing, swelling and discoloration of the whole anterior flap with a deep red line extending from over the ligated end of the anterior tibial artery upwards above the knee and half way up the thigh, the tissues were oedematous and extremely sensitive to the touch, patient complained of much pain in the limb and did not rest well. Up

to this time were using a dry dressing, but now it was thought best to treat the wound with a moist dressing. Some of the stitches were removed to allow better drainage and irrigation was resorted to. This was kept up, changing the dressing twice in 24 hours. In this treatment we used a solution of Pottossa Pormanginus Lysol, a dry powder of Aristol. After the 4th day the patient's temperature began to drop and stood at 100 degrees, where it remained for several days. The pain became less, appetite increased and the patient looked better. On the 7th day, the stitches were all removed, the line of demarkation had become fully established, the deep red line commencing from the internal surface of the anterior flap and extending to the medium line of the limb, thence along the course of the anterior tibial artery until it became less distinct, upwards towards the thigh.

On the tenth day, the slough had loosened up sufficiently to be nearly all removed, thus giving free excess to drainage and thorough cleansing.

From this time on the wound was treated openly. In the meantime, an abscess had formed on the internal and posterior surface of the thigh requiring free incision at two points above the knee, this was done promptly packed with sterilized gauze at each changing of the dressings of the wound. The wound had suffered considerable loss of tissue by slough, to that extent that the ends of the tibia and fibula was in sight, and it was thought they would need excision to insure sufficient covering, but in a very few days, granulation had completely covered the ends of the bones and had filled the contracted area perfectly.

From this time on the patient steadily improved until she was able to go to her home in Saginaw, Michigan.

Now, gentlemen, the point which I would like to ask is this: Do these symptoms cor-

firm "Thrombosis Hemorrhagic," due to concussion as by gun shot wound, or have we stronger reasons to believe there might have been sepsis in the case as the cause for the disturbance?

I have made this simple statement of the case more especially for the purpose of inviting your thoughts to a few minutes of discussion upon the subject other than to extend my article farther at this time. However, I desire you to note the following conditions which were present, that lead us to

make our diagnosis, namely: "Thrombosis of anterior tibial artery." First, the relaxed and collapsed appearance of the end of the artery, the anterior tibial which was in sight after amputation. Second, its failure to bleed upon removed of Esmarch. Third the line of slough which followed the course of the vessel. Fourth, the slough occurring in the anterior flap which contained the anterior tibial artery, while the posterior flap contained the posterior tibial artery, remained perfectly healthy and free from slough throughout the treatment of the case.

DISPENSING BY PHYSICIANS.*

H. B. GARNER,
Traverse City.

This is an important subject and one that should require the careful consideration of every practicing physician. The physicians who dispense their own medicines are simply turning the wheel of progress backward. Originally pharmacy and medicine were combined in the same profession and were practiced by the same men. With the development of knowledge and the inevitable specialization of all occupations a class of trained men known as pharmacists sprung from the parent profession of medicine as it was practiced in the middle ages. For physicians to return to the old conditions of things is to disregard science, reject progress, and tread history under foot.

Fortunately the better element in medicine realize thoroughly that the physician is not and cannot be a trained pharmacist; that he has received virtually no instruction

in pharmacy in his medical course; that he is entirely without practical dispensing experience; that he is incapable of performing the duties of a pharmacist with skill and safety; and that he should relinquish a practice which is at once dangerous and unethical.

Reasons why a physician is not competent to dispense drugs are these:

First—He is a physician and not a pharmacist.

Second—He is not a merchant or vender of material things.

Third—His time with a patient must, if it results in the greatest good of the patient, be devoted to the diagnosis and treatment of his case.

Fourth—The country is loaded with an inferior class of goods and he is apt to employ cheap remedies in preference to the better quality of pharmaceutical preparations.

Fifth—He cannot devote a proper amount of time to the preparations of active and reliable drugs and do a general practice successfully.

* Read before the Section on General Medicine at the annual meeting of the Michigan State Medical Society at Petoskey, June 29, 1905, and approved for publication by the Committee on Publication of the Council.

Sixth—His drugs must of necessity deteriorate.

Seventh—He falls into a routine way of prescribing pills, the formulae of which were studied with some one else's brains, and many times too often do not fill the bill.

In order to consider these reasons more specifically let us take them up in their order.

The first is self evident and requires no explanation. The second is likewise self evident. Many physicians dispense medicines claiming thus to make money. In other words, they become venders of drugs, not druggists nor pharmacists, but peddlers. The representatives of cheap pharmaceutical manufactures argue that dispensing is a money-maker and press hard the idea that physicians are getting their drugs cheap, and argue hard from the standpoint of convenience the sale of pills or tablets. However, they are very careful not to say anything about quality or accurate dosage.

The third reason, namely the lack of time, is likewise self evident. The time taken in the treatment of a careful physician for the preparation of drugs is stolen from that patient and he must be the loser.

Fourth, the physician who dispenses his own drugs usually uses cheap remedies, because this is one of his chief ends of making this branch of his business lucrative. He is often guilty of dispensing drugs which he knows are not the best remedies for the case, but are used because he happens to have them in stock and are not the drugs that experience and knowledge have taught him are the best for the case.

Fifth, no physician who compounds his own prescriptions devotes the time necessary to the scientific completion of that work, but employs ways and means of doing the work with the least amount of labor and in the shortest space of time.

Seventh, when any man allows any one

else not equally informed to furnish brains for his practice to unnecessary and perhaps hazardous risks he is himself, sooner or later, the loser.

On the other hand, it is equally important to bring up objections urged against prescription writing.

First—Druggists substitute.

Second—Druggists secure the business that rightly belongs to the physician by counter-prescribing.

Third—Patients pay the physician for the prescription, and having it filled once at the drug store have it refilled any number of times without the physician's knowledge or advise.

The pernicious practice of substitution may be largely overcome by the prescription writer directing his patients to a druggist whom he knows to be honest and fair in his dealings.

Second counter-prescribing is a great evil and a dangerous custom for druggists to fall into. Thousands of people are constantly buying preparations, prescribed by druggists, which contain alcohol, morphine, cocaine and allied drugs, which result in the contraction of habits to the wrecking of thousands of individuals. The apothecary shop of former days is not now known. The need of the medical profession is a strict apothecary shop where pure drugs are sold, where physicians' prescriptions are promptly and accurately compounded, where the good of the individual is uppermost in the mind and not in the pocketbook. In France auto-dispensing is prohibited by law, and I believe like laws in our own country are much needed and would be a protection and a blessing to the laity.

Gentlemen, remember that Dr. Hare tells us that a good physician is one who, having pure drugs knows when to use them, how to use them, and equally important when not to use them. On the other hand, would

say that a good druggist is one who, having pure drugs, knows when to compound them, how to compound them, and equally important when not to compound them.

Third—The reason raised by the physician who dispenses his own medicine, namely, refilling prescriptions without the advice of the physician, is one which can readily be settled by the physician and the druggist having a mutual understanding relative to the matter.

Prescription writing is popular in those localities where the large number of physicians are the most progressive. I do not mean to say that only progressive physicians write prescriptions, because this is far from

the truth. The country practitioner is fully as scientific and equally as successful as the city physician. He is obliged in many cases to dispense his own medicines, or, in other words, to be his own druggist, not as a matter of choice, in the vast majority of cases, but as a matter of necessity.

Is the dispensing physician the progressive, educated, sympathetic physician whose chief aim is to do good, and who would like to see two or three pharmacists make a living by catering to the interests of himself and his patients? Or is he the selfish, uneducated, unsympathetic man who "wants it all," and who cares not for his fellow man?

The Treatment of Acne.—C. M. Williams first reviews the evidence in favor of the various theories of the etiology of acne, and expresses himself as believing that the view which embraces both the bacterial and the constitutional factors is the true one. He says that acceptance of the belief that the microbacillus is the active, essential pathogenic agent in the production of the lesions does not involve the denial of the equally great importance of the constitutional state. Accordingly the treatment must be both local and general, and the necessity for thoroughness in the search for and correction of all possible predisposing causes, and for minute detail in all efforts at treatment, is particularly emphasized. Of the predisposing causes indigestion with constipation, disease of the sexual organs, the scrofulous type, and anemia are mentioned as especially important and their treatment when complicated by acne is outlined. The local measures are, however, the most important, and the hygiene of the skin is described in detail. Of topical applications, after the irritated skin has been soothed by the use of bland lotions like milk of magnesia diluted, stronger preparations of which the basis is usually sulphur and of which *lotio alba* is a useful example, are to be employed. The treatment also includes the expression of comedos, incision of indurated or sluggish nodules, etc., and the minutiae of these various phases are fully described. The author urges the adoption of a single drug as a main re-

liance and study of its possibilities, rather than shifting from one thing to another in the hope of finding a panacea, which does not exist. As the morococcus, which is responsible apparently for most of the inflammation and suppuration in acne, is exceedingly common if not universal in dermatitis seborrhoica, treatment of the scalp should go hand in hand with the other measures.—*Medical Record*, July 22, 1905.

Serum Therapy in Erysipelas; Results in Thirty-Three Additional Cases.—James C. Ayer, who some time ago published his observations on a series of fifteen cases of erysipelas treated by antistreptococcus serum, reports the results obtained by the same treatment in thirty-three additional cases. Three of the patients died in this last series, the average duration of the disease was 6.8 days, as against 7.6 days in the previous series. In the first series of 79 cases treated by the older methods, the average duration was 9.4 days. The author says that this shortening of the average duration of the disease by 2.6 days about expresses the value of this form of treatment. The general amelioration of all the subjective symptoms following its employment is also in its favor, as is the apparent beneficial effect on the febrile form of albuminuria, which is present in such a considerable percentage of the cases.—(*Medical Record*, August 26, 1905.)

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Editorial.

WHAT CLASS OF PRESCRIPTIONS ARE PHYSICIANS WRITING?

(As shown by an examination of 7,500 Rs from 15 different localities.)

A paper read last year at the Ohio Pharmaceutical Association by Mr. Kaemarar pertaining to the classes of medicine ordered by physicians as disclosed by 500 consecutive Rs. from his files, came to my notice late in the year. Incidentally turning to my own files and looking over 100, I found such a variation from his report that it occurred to me to get reports from various part of the state for presentation here.

The pharmacist was asked to separate the last 500 Rs. on his files into five classes as follows:

Class 1. Rs. consisting mainly of a proprietary medicine.

Class II. Rs. calling for ready made pills or tablets.

Class III. Rs. calling for single pharmaceutical.

Class IV. Rs. calling for two or more pharmaceuticals, but requiring no greater skill than simple weighing or measuring

Class V. Rs. other than the above and calling for a greater or less degree of skill in compounding.

Here are the results in percentages:

	I	II	III	IV	V
No. 1 Gd. Rapids..15	14.4	17.6	35.4	17.6	
No. 2 Cadillac.....22.8	6.8	26.4	42.6	1.4	
No. 3 Unionville...12	4	7	36	41	
No. 4 Detroit.....10	10.2	14.2	14.6	51	
No. 5 Owosso.....21	14	21	33	11	
No. 6 Ann Arbor.. 9	6	36	44	5	
No. 7 Detroit.....26.4	4.8	10.8	33.6	24.2	
No. 8 Detroit.....21.6	6	12.4	12.6	46.4	
No. 9 Detroit.....22.6	7	28.8	27	14.6	
No.10 Detroit.....19.8	10.4	9.6	34	26.2	
No.11 Detroit..... 3.8	10.4	14.2	17.2	54.4	
No.12 Ste. Claire..11	14	14	50	11	
No.13 Detroit.....22	8.6	20.2	27.8	21.4	
No.14 Detroit.....24.2	8.8	9.2	35.8	22	
No.15 Marquette...36	11	20	30	3	
Average Outside De- troit and Grand Rapids	13.2	9.3	20.7	39.3	12.1
Average Detroit and Grand Rapids....	18.4	9	15.2	26.4	30.9
Total average.....	16.3	9.1	17.4	31.6	23.2
Columbus (Kae- marer)	25	8	15	32	20

No. 11 said articles like Thymoseptine, Glycothymoline, Borolyptol and Haemotonic estimated at 10 per cent, he did not include in Class 1. If included in Class 1 it would make 13.88 per cent and deduct from Class III and IV.

No. 4 included those items in Class 1; without them the percentage was 5.6 per cent.

No. 10 includes Rs. of Hydrochloric acid with Elix Lactopeptine in Class 1.

No. 12 said a large proportion (50 per cent) of his Rs. are from one physician.

No. 11 includes in Class V Capsules, powders, Collyria, Suppositions, etc., also all mixtures containing poisonous drugs.

No. 1 includes in Class IV all simple ointments and powders as well as liquid, nothing however except what an inexperienced person could handle with slight instructions.

In 1895 an investigation conducted by Prof. Patch for the Amer. Pharm. Assoc. and covering 31,000 Rs. showed of proprietaries:

	Per cent.
Chicago	14.9
San Francisco	13
Philadelphia	4.78
St. Louis	14
St. Louis	11.8
Boston	12.5
Washington	5.25
Total average	11.25

Hilton (Washington) of 2,000 Rs. classified, 742 Mixtures, 124 Pills, 15 Plasters, 376 Powders, 50 Ointments, 17 Suppositories, 304 Capsules, 27 Tablets, 19 Comp. Tab., and 105 Proprietary.

No. 4, Detroit (Hall) examined also 100 Rs in Oct. 1904 and 100 Rs Jan. 1905.

	I	II	III	IV	V
Comparison.	Per	Per	Per	Per	Per
	cent.	cent.	cent.	cent.	cent.
Oct. 1904 (100Rs) ..	6	8	15	17	54
Jan. 1905 (100Rs) ..	6	6	17	24	47
July 1905 (500Rs) ..	10	10.2	14.2	14.6	51

He put into Class V Rs. calling for single pharmaceuticals but requiring technical skill in division, such as Ung. Hydrarg, divided in portions dispensed in oiled paper and division into Capsules or powders or others. Further divided Class V (No. 4 report) showed in per cent. as follows:

	Oct., 1904.	Jan., 1905.	July, 1905.
Suppositories .....	.0	1	.4
Pills	3	0	.8
Powders	4	5	4
Collyria	6	3	4.8
Emulsions	1	0	.4
Plasters	0	0	0
Capsules and Konseals....	18	12	12.6
Mixtures	17	19	19.6
Ointments	4	6	8
Impressions	1	1	.4

No. 11 further divided Class V expressed in percentage as follows: July 1905.

	Per cent.
Suppositions	0.
Pills .....	.8
Powders	5.2
Collyria	10.6
Emulsions	0.

Capsules and Konseals.....	9.8
Mixtures	22.8
Ointments	5.6
Infusions	0.
Plasters .....	.6
	55.4

The percentage of proprietaries seems to be more than the 1895 analysis by 4 per cent. Detroit and Grand Rapids combined have a little larger percentage than the smaller places owing probably to the physicians being visited oftener by representatives of proprietary or pharmaceutical houses. The increased percentage of Class V in the city is what might be expected as more specialists are in the larger places and a much greater variety of Rs. from other cities are met with.

A further investigation along these lines another year with more time, a broader field, limitations more exactly defined and if possible a tabulation of the articles prescribed and frequently will add a good deal to this interesting subject.

WM. A. HALL.

THE NEW U. S. PHARMACOPEIA.

A new Pharmacoporia to be known as the Eight Decennial Revision according to the Committee of Revision for the name that it was not, nor were its predecessors for that matter, published exactly at the beginning of the decade, and hence should not be described by its first year, became official September 1, 1905. Since it is in this state, as in many others, adopted by law as the standard for drugs used for medicinal purposes, and is therefore used, necessarily, by the pharmacists in putting up our prescriptions, it is incumbent upon us all to this work.

Following along the lines of the International Conference held in Brussels in 1902, some important changes have re-

to die from circulatory troubles—since no examiner can always tell the exact condition of the “pumps, valves and pipes,” even though he has acquired great skill from long experience. We know that hundreds die directly as a result of myocardial changes, yet no physician can diagnose changes except those producing marked hypertrophy, dilatation, or advanced fatty degeneration. Hundreds of patients destined soon to die from fibroid changes from weak muscular walls, and from fatty changes are passed as “first class.” Among so many “first class risks” there are many that the examiner should find bad if he would observe a little more closely the signs of trouble ahead that nature often reveals. These signs are found in the heart muscles, the heart cavities, and the blood vessels; so the examiner, in looking over an applicant’s circulation, should ask himself the following questions: What is the condition of the heart muscle; of the heart cavities; of the blood vessels?

Dr. Ellis mentions the following as some of the common mistakes:

1. Excited, nervous heart, beating against thin chest walls; diagnosed as hypertrophy.

2. Loud systolic murmur, widely diffused over left chest and behind, and disappearing with the anemic conditions; diagnosed as mitral regurgitation.

3. A loud mitral systolic murmur clearly heard six months after typhoid fever, miscalled organic mitral regurgitation. In three months such a heart may regain its muscular strength, the dilated mitral orifice may contract to its normal size, and the leak prove to be only relative.

4. Flint’s aortic regurgitation heard at the apex; miscalled mitral stenosis, though the peripheral signs show the true lesion.

5. Forgetting to hunt for aortic murmurs at the third and fourth left and second right interspace because the sounds at the apex are clear.

6. Diagnosing a cardiorespiratory murmur heard about the apex, in the axilla, and behind as mitral regurgitation.

7. A condition where the apex beat is two inches to left of nipple line, a heaving heart, a clear first sound, an intensified second, with tense arteries, miscalled a normal heart.

8. An aortic murmur, diagnosed as true aortic stenosis, when there is a strong aortic second sound, no cardiac thrill, and no low plateau pulse. It is well to remember that there are ten possible causes for an aortic systolic murmur, one of which is aortic stenosis.

9. The greatest mistake of all and often the real cause of most mistakes: Listening to a heart through the clothing, from a thick shirt to shirt, waistcoat, and coat.

The following general points are made:

1. A musical ear is of great value in heart examinations.

2. Most murmurs are functional or cardiorespiratory. Advanced heart lesions may show no hypertrophy, no dilatation, but merely a diseased valve with signs of heart muscle degeneration.

3. Cardiorespiratory murmurs disappear after a full expiration. Relative murmurs from hearts weak after acute disease disappear when the heart muscle recovers its normal tone.

4. Limit all murmurs to one diseased valve, if possible, since post mortem examinations usually show one diseased valve with a relative leakage at another valve.

5. An aortic regurgitation may produce four murmurs with but one diseased valve.

6. Each murmur must have its own

maximum intensity and its own area of diffusion.

7. An organic murmur is not always attended by the expected changes in the heart, in the pulmonary and peripheral circulation.

8. The pulmonary second sound is usually greater than the aortic second until thirty years of age; about the same until sixty years and less than aortic second after sixty years.

9. Know well the classical pulmonary, peripheral, and cardiac lesions and see how many of these signs are partially noted in each special case.

10. A long, loud murmur may indicate a strong heart with little valve change, while a short, blowing murmur may indicate a weak heart with great valve change.

11. Hypertrophy may be caused by over exercise, by pulmonary or peripheral circulation resistance, as well as by valve lesion.

12. A bad heart does not necessarily mean a valvular lesion any more than valvular lesion means a bad heart.

13. A pulse that intermits occasionally may be considered physiological, but an irregular, intermittent pulse is almost always pathological.

14. First study the heart as a pump muscle, then study the valves, then the vessels; and last the non-organic murmurs.

County Society News.

MANISTEE COUNTY.

Albert S. Payne, of Manistee, reported the following case of tetanus, treated with intraspinal injection of anti tetanus serum:

On June 23d, 1905, E. P. was shot in palm of left hand with a blank metallic cartridge. Said he removed wad from wound after injury.

Nine days later on July 2nd, bad backache between shoulders.

July 3d and 4th same; felt tired but was up and around.

Jaws began to hurt on 4th and 5th, felt stiff.

I saw him first on 6th. Could only open jaws about three-quarters inch and left hand was flexed at a right angle; could not extend wrist if fingers were extended but could if they were closed. Wound had dark necrossed centre with pale edges, no redness or swelling. Dorsal and abdominal muscles rigid. Temperature 100 degrees, pulse 120; appeared scared. Could not turn over in bed or sit up without help and moving caused great pain and increased the muscular spasm. Curretted out wound which was one-third inch deep and cleansed with ninety-five per cent. carbolic acid. I injected 20 c.c. tetanus antitoxine into dorsal muscles. July 7th, temperature, ninety-nine and four-fifths, pulse one hundred, some difficulty in swallowing. Abdominal and dorsal muscles in tonic spasm. Pressure increases spasm and causes great pain.

July 9th, temperature, ninety-nine and one-half, pulse 100; sleeps scarcely any. Gave intraspinal injection of 10 c.c. of antitetanus serum (after the method of Dr. J. Rogers, in the Journal of the American Medical Association of July 1, '05) trying to enter the cord by moving the needle back and forth after passing through the subarachnoid space. Also gave hypodermic injections of 1 c.c. of a two per cent. solution of carbolic acid every three hours and kept this up until July 17th.

Could only open mouth about one-third inch. Throwing back the bed clothing caused arching of back from spasms. July 10, left wrist could only be extended by using force and causes great pain. Urinated and bowels moved freely; slept one and one-quarter hours in twenty-four.

July 11, intraspinal injection, 10 c.c. antitoxine. General tonic spasm, five rashes over body; tongue very sore; jaws closed so could not get thermometer in mouth; seems worse in every way. July 13th, temperature ninety-nine and two-fifths degrees; pulse 112. Has not slept three hours in four days. Added one-eighth grain of Morph. Sulph to each hypodermic of the carbolic acid solution and gave gr. x. of potass brom. every hour.

Gave intraspinal injection of 10 c.c. antitoxine, severe popular rash all over the body. Takes liquid nourishment but finds it hard to swallow.

July 14, intraspinal injection of 10 c.c. antitoxine. Does not suffer as much as yesterday and appears better; wound on hand healed; rash nearly gone, except on back. Pulse 112; tem-

perature ninety-nine and one-half degrees; abdominal and dorsal muscles still in tonic spasm. Hand not quite so rigid and I can partly straighten it with force.

July 16, appeared much better, eats and sleeps well. July 21, continued improvement; mouth opens three-quarter inch, but dorsal and abdominal muscles contract if they are manipulated; wrist still flexed. Temperature ninety-nine and one-half; pulse one hundred. July 31, can walk around room and nearly straighten wrist but abdominal muscles show some rigidity and he has severe pain in right upper gluteal region, but this gradually disappeared and on Aug. 20th, he was reported to me to be as well as usual although I have not seen him since July 31st.

W. K. BRANCH, Sec'y.

Medical News.

General Isaac J. Wistar, of Philadelphia, founder of the Wistar Institute of Anatomy and Biology of the University of Pennsylvania, formerly president of the American Philosophical Society, died September 18, at the age of seventy-eight years.

General Wistar left \$400,000 to the Wistar Institute of Anatomy and Biology of the University of Pennsylvania.

The Emperor of Austria has conferred a life patent of nobility on Dr. Edmund Neusser, Professor of Medicine in University of Vienna.

Leprosy is said to be increasing in Roumania. Till 1895 no special precautions were taken, the disease not being considered contagious. Since then, however, so many cases have been discovered that the authorities became alarmed and the rebuilding of an ancient monastery at Arnota on the seashore for the interment of lepers was resolved on.

Col. W. C. Gorgas, chief sanitary officer of the Isthmus Canal Zone, has officially reported the death of an authentic case of bubonic plague. All who have been in contact with the case have been strictly quarantined and the entire village disinfected.

The Peary Arctic Expedition has gone without a surgeon. The medical man who had been engaged for the expedition was unable at the last moment to go.

A recent number of the *Revue des Deux*

Mondes contains an article by Professor Lortet F. Lyons, in which recent discoveries in respect to embalming in ancient Egypt are described. More than seventy yards of cloth of a width of about 12 inches were used in wrapping a mummy. The cloth was impregnated with a resinous alkaline solution, to what Professor Lortet attributes the preservation of the tissues. Ten large jars, carefully stoppered, full of a yellowish powder, have been found in a tomb near Thebes. On analysis, the powder was found to contain an aromatic resinous substance and a large proportion of sodium salts, with some sand and clay. The resinous substance is evidently an extract of various aromatic substances in which myrrh predominates. Cloth dipped in water in which some of this powder was dissolved presents the same appearance and odor as the cloth in which mummies were wrapped.

American surgeons at Manila are said to have attained remarkable success in the cure of leprosy by means of the X-Ray.

The first number of the "State Board Journal of America" made its appearance September, 1905. It is a monthly periodical devoted to the mutual interests of boards, students and colleges of medicine, dentistry and pharmacology. It is published in Washington, D. C.

More than one million people emigrated to the United States during the year ending June 1st—In 1842, the number was one hundred thousand. During the past eighty-six years the total number of emigrants to this country has been 22,932,905.

The Hot Springs medical profession has been somewhat upset over the recent decision of the Arkansas chancellor to the effect that the act of the state legislature restricting "doctor drumming" was unconstitutional. Along this line it is reported that the United States government has sent a special inspector to investigate the conditions of medical practice there and also of the wholesale gambling. It is rumored that in order to rehabilitate Hot Springs the government will put certain restrictions and regulations upon the use of baths so as to purify the general morals of the popular resort.

Plans are maturing for the engagement of a chartered steamship from New York at a reasonable rate and to include not only passage to the congress at Lisbon, but also a European itinerary. Dr. Charles Ward Fassett, of St. Joseph, is engineering the arrangement.

American physicians and dentists find it impossible to practice their professions in the Transvaal without first obtaining a certificate of registration and such certificates cannot be obtained unless the applicant possesses British qualifications.

After five years of very creditable work Dr. Emil Amberg of Detroit retires at his own request as The Michigan Member of the National Legislative Council of The American Medical Association. The Society will lose the services of a hard, conscientious, fearless worker in a delicate field; but is fortunate in securing as his successor one who by education and personal traits will fill the chair with the same fearlessness, tact and good judgment, Dr. Flemming Carrow.

Miscellaneous.

CHANGE IN MEMBERSHIP.

(July 15th to Sept. 15th.)

NEW MEMBERS.

J. C. Abrams, Calumet, Mich.
E. H. Campbell, Newberry, Mich.
W. H. Dodge, Hancock, Mich.
Emil Houle, Kearsarge, Mich.
H. F. Hughes, Cambria, Mich.
H. M. Joy, Calumet, Mich.
F. H. Newberry, Cass City, Mich.
S. C. Norton, Baltic Mine, Mich.
F. E. Rutledge, Newberry, Mich.
J. J. Sweetland, Motville, Mich.
P. Talford, Pittsford, Mich.
J. W. Toan, Grand Rapids, Mich.
A. N. Treadgold, Cass City, Mich.
J. M. Wilkinson, St. James, Mich.

CHANGE OF ADDRESS.

S. E. Campbell, Kearsarge, Mich.
F. J. Fralick, Greenville, Mich.
E. B. Gibson, Ypsilanti, Mich.
J. Gillett, Wixom, Mich.
C. E. Keeler, Erie, Pa.
A. C. MacKinnon, Lewiston, Mich.
M. R. Sutton, Clayton, Mich.
F. L. Truitt, Noblesville, Ind.
W. B. Wallace, Cadillac, Mich.

BOOKS RECEIVED.

A PRACTICAL TREATISE ON SEXUAL DISORDERS IN THE MALE AND FEMALE. By Robert W. Taylor, A.M., M.D. Third Edition. Lea Brothers & Co., Philadelphia and New York, 1905.

A READY REFERENCE HAND-BOOK ON DISEASES OF THE SKIN. By George T. Jackson, M.D. Fifth edition. Lea Brothers & Co., Philadelphia and New York, 1905.

A TEXT-BOOK OF CLINICAL DIAGNOSIS. By L. N. Boston, A.M., M.D. Second edition. W. B. Saunders & Co., Philadelphia and London, 1905.

A TEXT-BOOK OF DISEASES OF WOMEN. By Barton C. Hirst, M.D. Second edition. W. B. Saunders & Co., Philadelphia and London, 1905.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M.D., Ph.D., LL.D. Seventh edition. W. B. Saunders & Co., Philadelphia and London, 1905.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By Horatio C. Wood, M.D., LL.D. Twelfth edition. J. B. Lippincott Co., Philadelphia and London, 1905.

ADVANCED SHEETS. A Manual and Atlas of Orthopedic Surgery. By James K. Young, M.D., 900 pages, 800 illustrations. Cloth \$10. P. Blakiston's Son & Co., Philadelphia, 1905.

Correspondence.

Secretary:

At the British Medical Association which met this year at Leicester, two notable addresses were given, one by the president Mr. George Cooper Franklin, F.R.C.S. and the other by Henry Maudsley, M.D., F.R.C.S.

The first on the "Methods of Education in our Medical Schools and Colleges", and the second on "Medicine, Present and Prospective." Mr. Cooper remarked that in many instances the preliminary examinations are lamentably slack and ineffective. He suggests that every medical student should be required to pass an examination equal in stringency to the matriculation examination of the University of London. He regrets that the student has been allowed the alternative of taking up the study of German instead of Greek. With regard to the education in obstetric medicine and surgery the speaker did not think that its importance was appreciated as it should be, as he considered it only trifling with the subject for it to be deemed sufficient that a man should have attended not less than twenty cases in order to be recommended. While there has been a vast improvement in the teaching of the administration of anaesthetics compared with former years, he thought that its importance was still underestimated, as the administration of an anaesthetic may devolve upon any practitioner at any moment.

Dr. Maudsley, who is recognized as a philosopher as well as a physician and scholar, delivered a masterly address which is considered a valuable contribution to modern medical thought.

He takes the old truism "Prevention is better than cure" boldly in his hands and shows by comparison how simple are the laws which govern the one and how complex and almost incomprehensible are the laws which govern the other. Pure air, pure water, fitting food, exercise and temperance are his watchwords. In the passages in which he deals with the chemistry of the human body, he does not pretend to expound original ideas, but presents the facts with a beautiful lucidity and eloquence. The normal man throws off toxic agents which are created within him by the natural processes of the body and when those natural processes are arrested or disturbed, the exact nature of the chemical changes are hard to understand and it is just as difficult to know what chemical reagent to administer.

Chemistry of Emotion.

Of profound interest is that part of Dr. Maudsley's address where he makes a determined onslaught upon those who make an arbitrary differentiation between the mind and body as if there was a chasm between—and as if they did not unite in every physical and spiritual fiber to make one personality; a lunatic being a lunatic to the tips of his fingers. None the less interesting was he when he inveighed against the present practice of inventing and multiplying words of Greek or Latin or mixed roots to describe simple things.

Two questions of vast importance have been under consideration by the officials of the British Isles, viz.: the deterioration of the inhabitants of the Isles and the increase of insanity.

Dr. Maurice, recruiting officer of the British army, reported that three out of every five of the young men who presented themselves for examination for the British army were rejected being physically unable to reach the standard requisite. And quite a percentage of those who did pass were incapacitated during the first six months or before the end of two years service. The General in his analysis for physical breakdown gives heart weakness, pulmonary troubles, rheumatism connected with a low anaemic condition of the whole body. Then follows flat feet which tend to make long marching impossible, and bad teeth causing indigestion. In discussing the causes

of the above diseases he attributed bad teeth to improper feeding during childhood and infancy, due to ignorance of mothers and scarcity of milk, and too early marriages of unfit parents resulting in weakly offspring.

He points also to the continuous rush of people from the rural districts to the cities and failure to earn adequate wages after they get there, because only skilled labor demands good pay, and he presumes that neither the unskilled labor nor the hereditary townsman who after two or three generations has physically deteriorated, is able to rear a healthy family. After being discussed by the English press the question was taken up by the House of Commons, and the Lord Privy Counsel appointed a commissioner of experts to secure evidence in different parts of the British Isles after consulting with the Royal College of Physicians and Surgeons as to the necessity as well as the best method and extent of examination.

The report of commission was very exhaustive and voluminous containing fifty-four recommendations and was submitted to Parliament. Testimony being taken and investigations made throughout England, Wales, Scotland and Ireland. Although the evidence did not support the view that there is a progressive physical deterioration of population the committee was impressed by the gravity and importance of the facts disclosed and suggested the necessity of a periodical examination or estimate of the health of the people. Among the important recommendations made were those pertaining to anthropometrical measurements at certain periods, of height, weight, chest girth maximum and minimum, head length, breadth and height, breadth of shoulders by Callipers and breadth of hips, also tests for vision and hearing.

The evidence in relation to the condition of the teeth was sufficient to prove conclusively that the condition of the teeth was not nearly so good as formerly; the increased dental decay and early absorption of teeth sockets in jaws is sufficient to attract the attention of medical men.

Is Insanity on the Increase in the British Isles?

In England, Wales and Scotland the question of increase of insanity has been under consideration by the Commissions in Lunacy who control the asylums in the above countries. The men composing these commissions are of high professional and business attainments.

Their report for England and Wales indicate that the numbers of insane under care have been increasing at a greater ratio than the growth in population. The report includes the investigation of age in relation to frequency of mental disease, also sex and variety, whether the organic forms occur more frequently than formerly, and cause of each form. Dr. Clouston who has been medical Supt. of the Royal Edinburgh Asylum for more than three decades, and is the leading authority throughout the British Empire, states that the most fatal disease sent to the above asylum, General Paralysis, has markedly increased, both in proportion to the population and admissions and also absolutely in numbers. He also states that the ratio of alcoholic insanity is steadily increasing. The commissions have been in existence for more than half a century and have after looking into the question carefully advised against large asylums and recommended the hospitalization of all as far as possible.

The British Medical Journal Library and Reading Room.

This leading medical journal has for its home a very central location on the Strand with the Charing Cross Hospital on the opposite corner of street. The clerical force is located on the ground floor; the immense library with librarian in charge on the second floor.

The leading medical journals of the world as well as this vast library are available to members who constantly improve the splendid opportunity for study and research. The writer was shown every courtesy and given the privileges of the library while in London. It is sincerely hoped that the profession of the city of Detroit will rise to a sense of duty and take steps towards providing a home and a nucleus for a library which will eventually increase and develop and place our fairest city in line with other progressive American cities.

SAMUEL BELL, M.D.

* Notes taken during recent trip to England.

(Congenital Umbilical Hernia) — Charles Greene Cumston says that congenital umbilical hernia arises only through the ring, the periumbilical variety occurring only in the adult. Some contain viscera which have never been in the abdomen, on account of lack of closure, while in others the viscera forming the contents protrude after having been normally placed in the abdominal cavity. The

author divides this type of hernia into embryonal and fetal hernia, the latter developing after the completion of the third month of intrauterine life. Embryonal hernia has three varieties: umbilical eventration, characterized by an arrest of development of the abdominal walls, or a defect of union of the walls; diverticular hernia, due to the persistency of the vitello-intestinal duct, which opens into the intestine by an orifice called the intestinal umbilicus; hernia of the vitelline loop, characterized by the presence of the intestinal loop united to the vitello-intestinal duct at the base of the chord, which has remained adherent to the umbilicus. The contents of these herniae may include almost any of the abdominal viscera, and even the heart has been found in them. Aside from the intestine the liver is most frequently found. Congenital umbilical hernia develops after the formation of the abdominal ring. The viscera are contained in a sac formed of peritoneum. The sac is usually ruptured during labor. When not ruptured it is transparent. The two umbilical arteries are usually situated outwardly and below, the vein above the rest of the mass. Malposition of the viscera is common, as well as hypertrophy. The mesentery may be longer than normal. The malformations accompanying this condition are generally of the genitourinary organs, double uterus, epispadias, bifid penis, etc. There may be malformation of the intestine such as stricture, absence of anus or rectum, or occlusion. Congenital umbilical hernia is rare. The condition results from the failure of the somatopleure to reach the median line on account of arrested development. If this occurs all along the median line the thoracic as well as the abdominal viscera are left uncovered. Or the somatopleure may remain thin and transparent. Another cause is a defective regression of the omphalomesenteric duct. A third is the persistency of the umbilical vesicle, which draws the part of the intestine to which it is attached out of the ring. The hernia may be so small as to be tied in with the cord and cut, and death result from a fecal fistula. The prognosis varies with the form of hernia. It is not absolutely bad in the slighter forms. Operation should be done as soon as possible after birth, as the sac becomes dry and causes inflammation of the viscera. Simple laparotomy, with extirpation of the sac, and suture of the freshened border of the wound, will be sufficient in a large number of cases.—[*Medical Record*, September 23, 1905.]

Book Notices.

Under the Charge of

RAY CONNOR.

American Edition of Nothnagel's Practice.—Diseases of the Kidney, Diseases of the Spleen, and Hemorrhagic Diseases. By Drs. H. Senator and M. Litten of Berlin. Edited, with additions, by James B. Herrick, M. D. Octavo of 816 pages, illustrated. Cloth, \$5.00 net; half morocco, \$6.00 net. W. B. Saunders & Co., Philadelphia and London. 1905.

With the appearance of this volume the American edition nears completion as only the heart remains to be translated. It was necessary to include the spleen and hemorrhagic diseases with the kidney for the sake of uniformity in the series. The volume before us is practically a monograph on the subjects considered and as such can be read quite independently of the rest of the practice. The American editor has added many notes to the original but they are clearly distinguished from the rest of the text. The surgical treatment of Bright's Disease seems to be in favor neither with the German author nor the American editor. Articles on Cryoscopy and the Phloridzin test have also been added in the translation.

The sections on the spleen and hemorrhagic diseases are from the pen of Professor Litten. The book is well illustrated and makes available for the English reader these exceedingly valuable works of reference which until now have only been accessible to the student of German. Dr. Stengel and his collaborators are to be congratulated on the zeal and industry which has achieved this result.

A Text-Book of the Practice of Medicine.—By James M. Anders, M. D., Ph. D., LL. D. Seventh edition, revised and enlarged. Octavo of 1,297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1905. Cloth, \$5.50 net; sheep or half morocco, \$6.50 net.

This popular text-book has passed through seven editions in about as many years and still continues to hold its place in the regard of students of medicine. The author takes up his descriptions of disease in a very systematic way, giving first the definition of the disease, then an historical note when desirable, then pathology, etiology, clinical history, diagnosis, prognosis, and treatment. As is well known, the author is no therapeutic nihilist and gives usually full sections on treatment, much to the satisfaction of the average student.

Numerous tabular presentations of the points of distinction are given under differential diagnosis and will continue to prove helpful. Among the new subjects introduced in this edition are: Rocky Mountain Spotted Fever, Examination of Patients for Diagnosis of Diseases of the Stomach, Splanchnoptosis, Cammidge's Tests for Glycose in the Urine, and Myasthenia Gravis.

Paragraphs have also been added on Pseudo-tuberculosis, Benign Cirrhosis of the Stomach, Intestinal Lithiasis, Intestinal Calculi, Red Light in Variola, Adams-Stokes' Syndrome and other topics. Certain sections have been rewritten and additions made to bring the work up to the latest discoveries and at the same time give the student the advantage of the author's constantly growing experience.

A Text-Book of Clinical Diagnosis.—By Laboratory Methods. For the use of students, practitioners, and laboratory workers. By L. Napoleon Boston, A. M., M. D. Second edition, revised and enlarged. Octavo of 563 pages, with 330 illustrations, including 34 plates, many in colors. Philadelphia and London: W. B. Saunders & Co., 1905. Cloth, \$4.00 net; sheep or half morocco, \$5.00 net.

It is unusual for a book to require a second edition within a year after its prior appearance. The volume before us, however, seems to have met so general a need amongst students and practitioners of medicine as to necessitate this. The time is so short that no great changes have been made in the text or general scope of the work. The body of the book shows little alteration although the addenda has been considerably expanded. Seventeen new pages have been added including articles on Biff's New Hemogelometer, Ficker's Typhoid Reaction, Leishman-Donovan's Bodies and other recent topics. Cyto-diagnosis is more fully considered than in the first edition. A number of new illustrations have been added and the general attractive appearance of the book retained.

Jackson on the Skin.—A Ready Reference Handbook on Diseases of the Skin, by George T. Jackson, M. D. Fifth edition, enlarged and thoroughly revised. In one 12mo volume of 676 pages, with 91 engravings and 3 colored plates. Cloth, \$2.75 net. Lea Brothers & Co., Philadelphia and New York, 1905.

To the specialist in that branch an alphabetical arrangement of diseases does not appeal but to the busy practitioner and to the student it fills a practical need, as emphasized by the demand for another edition of Dr. Jackson's excellent Handbook.

The great value of the work lies in the clearness of its symptomatology and diagnosis and the mature judgment used in its therapeutic recommendations. The appendix, containing formulæ for baths, lotions, ointments, powders, etc., and prescriptions for internal treatment, is especially valuable.

The new edition presents a thorough revision of the subject, so that the work may be consulted as a true exponent of the science of Dermatology to date.

As heretofore, symptomatology, diagnosis and treatment are specially considered. Many new sections have been added, resulting in a considerable enlargement of the work.

A. P. B.

Taylor on Sexual Disorders.—A Practical Treatise on Sexual Disorders in the Male and Female. By Robert W. Taylor, A. M., M. D. New (third) edition, enlarged and thoroughly revised. In one octavo volume of 575 pages, with 130 engravings and 16 colored plates. Cloth, \$3.00 net. Lea Brothers & Co., Philadelphia and New York, 1905.

The scope of the book and the demand for another large edition of Dr. Taylor's excellent work are best comprehended by quoting, in part, from the author's introduction:

"It certainly can be stated . . . that until recently the subject of sexual disorders had been treated in books and essays in a loose and impractical manner. This condition was due to the facts that the study of these affections was not thoroughly entered into and that the necessary ground work of pathological anatomy had been entirely neglected.

The endeavor has been made to fully describe the anatomy and physiology of the whole sexual apparatus in a scientific and philosophical manner, and in doing so the results of extended personal investigations have been incorporated. The importance of urethral inflammations as an underlying cause of sexual impairment has been duly emphasized. Much care has been bestowed on the description of chronic affections of the prostate. . . . The conditions of the seminal vesicles and their relation, when diseased, to sexual disorders have been fully elaborated.

. . . In fact, the basis of the study of genito-urinary diseases will be found in this book.

The subject of sterility in women is considered in a general manner, with the idea of conveying to the mind of the reader the conditions which tend to render a woman infertile. The various forms of sexual disorders in women are fully considered."

The text has been thoroughly revised to date and the sections enlarged. Four completely new chapters have been added with a number of new illustrations, mostly original.

Dr. Taylor's work is practically the only one in English in its exact field, and its great practical worth is clearly reflected in the demand which affords such frequent opportunities for revision.

A. P. B.

International Clinics.—Edited by A. O. J. Kelly, A. M., M. D. Volume 11., Fifteenth Series, 1905. 316 pages. Cloth, \$2.00. J. B. Lippincott Company, Philadelphia and London, 1905.

This number of the Clinics is quite up to the high standard of the past. Under treatment, Dr. Morse considers the acute nephritis of childhood and Dr. D. B. King of Edinburgh the use of Adrenalin in pulmonary hemorrhage. In the section on medicine, Dr. Willson of Philadelphia, considers very fully the diagnosis of incipient thoracic tuberculosis and Dr. Benedict advances a novel theory as to the etiology of seasickness.

Drs. Lermoyez and Berlin of Paris report two

cases of acute purulent generalized meningitis operated on by them after a diagnosis had been made by lumbar puncture. The dura was exposed but not opened in one case and freely opened in the other. Both cases recovered rapidly after operation. A timely article is included in this number on Scopolamin anesthesia, giving the dosage and reviewing the fatal cases so far reported. This would seem to give in certain cases at least a very good anesthesia without any preliminary stage of excitement or any post operative nausea. It can often be combined with chloroform with a great saving of the latter.

Single articles are given under the sections of Gynecology, Ophthalmology, Rhinology, Physiology and Pathology. The volume is illustrated with plates, charts, diagrams, etc. The book is very nicely gotten up and will be welcomed by a large circle of friends.

Therapeutics: Its Principles and Practice.—By Horatio C. Wood, M. D., LL. D. Twelfth edition, thoroughly revised and adapted to the eighth edition of the United States Pharmacopoeia, by Horatio C. Wood and Horatio C. Wood, Jr., M. D. Cloth, \$5.00. Pages, 908. J. B. Lippincott Company, Philadelphia and London, 1905

This standard work is almost too well known to the profession to require any extended notice. The authors have taken the appearance of the new pharmacopoeia as the occasion of a revision of this important work. The large number of changes which have been made in this new pharmacopoeia have almost necessitated a revision of this class of works. Over seventy new drugs are discussed in this edition, amongst them: argyrol, thiosinamine, ursotropon and others of like importance.

The book continues its two-fold mission as a text-book for students and a reference work for practitioners of medicine. A detailed consideration of local anaesthesia, including the so-called spinal and neural anaesthesias, is among the new features of the book. The old question of the best general anaesthetic is fully discussed and the authors conclude that the surgeon is not justified in using chloroform unless under certain circumstances and for certain definite reasons.

The general arrangement of the work and its general appearance has not been greatly changed in this edition and the book continues to hold the same high position which has been accorded to it for the past quarter of a century or more.

Handbook of Anatomy.—Being a complete Compend of Anatomy, Including the Anatomy of the Viscera and Numerous Tables, by James K. Young, M. D. Second edition, revised and enlarged. With 171 engravings, some in colors. Crown octavo, 404 pages, extra flexible cloth, rounded corners, \$1.50 net. F. A. Davis Company, Philadelphia, 1905.

The call for a new edition of this book has been made the occasion for a revision of the text and illustrations. The number of the latter have been rather more than doubled and the size and number of the pages have been increased. The work is based on Gray and Morris and is intended for use in connection with one or the other of these standards.

The book is well printed and should prove useful not only to the student but also to the practitioner who desires to brush up his half-forgotten anatomical knowledge.

Progress of Medical Science.

MEDICINE.

Under the Charge of

H. D. JENKS.

The Stokes-Adams Syndrome.—This is a disease characterized by vertigo, syncope, loss of consciousness and a slow pulse, a pseudo-apoplexy. Riegel has found that from an examination of 7,567 cases 1,041 had pulses below 60, yet of these but 47 had circulatory disease. There seems to be many cases where a slow pulse is physiological. Napoleon is said to have had a normal pulse of 40. Vigoroux speaks of a laborer who had a pulse of 20, yet was capable of a great deal of hard work.

This disease occurs in patients with demonstrable cardiac lesions, or with changes in the nervous system. Two cases are reported in detail, one a man 57 years old began with vertigo, headache and pain in the chest. Attacks were common in the morning or on stooping. Pulse was 38, full and regular. Cardiac area enlarged. The faintest systolic, however, could be detected at apex. In horizontal position pulse was 32, on exercise it was 44. Diagnosis of myocordial degeneration was made. Rest in bed relieved the vertigo for a while. About six weeks later, while in a wheel chair without any exertion or pain he collapsed and died. Before death his pulse ranged at between 20-30. The other patient was a man of 19, had a sore throat; after three cultures diphtheria was found, but it was very mild; three months later, although he had been working, in the evening had pain in his stomach. On getting up next day in dressing he fell forward on the floor, but soon revived. He had severe pain in head and chest. In attempting to vomit he fell forward in opisthotonos, respiration ceased, face became cyanosed. This lasted 20 or 30 seconds, then he began to breathe and recovered consciousness. His pulse was 16, heart enlarged. There were seven attacks that day. After the last one his pulse was 24. Next day 40. Two years later he had another attack, in which his pulse was 30-36. Heart's area smaller than in previous attack. At present his pulse is 80-90, with normal heart sounds.

In 1,000 cases of diphtheria but three cases of bradycardia were found, but these were at end of second week. Pulse was 20-30 and death resulted. In diphtheria the majority of heart symptoms are due to changes in pneu-

mo gastric nerve, according to McCollom, but Baginsky and Rosenberg believe diphtheria a common cause of myocarditis.

It was at first believed that fatty changes in the heart were the cause of the symptoms, but now that nervous system takes part, arterio-sclerotic in nature affecting the brain and medulla. They usually occur in older individuals, but may come at any age. One attack may be fatal, or there may be repeated attacks.—(Foley: Boston Medical and Surgical Journal, August 31, 1905.)

The Advantages of Sanatorium Treatment of Tuberculosis.—F. M. Pottenger (Los Angeles, Cal.) believes patients can be treated best in a sanatorium because (1) they are under the immediate and constant guidance and control of the physician, who can see that they do the things which are necessary to help bring about a cure, and prevent them from doing things which tend to lower vitality and retard progress. (2) They are furnished with apartments suitably lighted and ventilated, and with foods adapted to their needs and properly prepared. (3) They can be given the advantages of all scientific measures which have proved of value in treatment. Good food, fresh air and careful guidance are the basis of treatment, but the tuberculous individual is not receiving the best that can be had until we give him the benefit of all scientific aids, and of these especially to be recommended are: hydrotherapy, the chemic rays, culture products, and direct medication of the upper air tract.—(American Medicine, September 9, 1905.)

Convenient Points for Making Intra-Muscular Injections in the Treatment of Syphilis.—Victor Cox Pedersen describes and illustrates a plan of subdividing the two gluteal regions into four quadrants and making three injections in each of these in rotation in such a manner that the same spot is made the site of operation only once in thirteen weeks. He also describes the technique of injection and says that in several hundred injections made in this way he has never had any tendency to infection or the production of painful swellings lasting more than two days, and even these have been rare.—(Medical Record, September 2, 1905.)

NEUROLOGY.

Under the Charge of

GUY L. CONNOR.

Vertigo.—I intend to confine myself entirely to true rotation, to an actual sense of rotation on the part of the patient, or to actual rotation as a forced movement and such rotation, as a rule, accompanied by nausea. I am not in any way presuming to trench upon the wide field of the physician, namely, where we have rotation indistinguishable from dizziness. And further I must admit a considerable limitation, because my experience is drawn practically from only two classes of patients, namely, cases of destructive ear disease on one hand and new growths on the other. I have seen a considerable amount of Meniere's disease that has been referred to me from time to time, but of such conditions as laryngeal vertigo I know nothing.

Severe vertigo is a sudden disturbance of equilibration. What we want to know is whether this disturbance occurs in the periphery (in the semi-circular canals), whether that disturbance in the periphery is produced by pressure in the middle-ear upon the labyrinth, or whether the mischief is not in the trunk of the vestibular nerve, in the bulb, cerebellum, pons, crus, or cerebral cortex.

Cases of semi-circular canal disease require more attention in the direction of localization. We do not get true rotation (objective rotation and forced movement) from simple middle-ear disease. We do not get such forced movement until the vestibular trunk or wall of labyrinth is implicated.

I am not aware that true vertigo has resulted from disease of the vestibular nerve except when that has occurred in the form of new growths.

It is almost impossible to differentiate between disease of the trunk of the eighth nerve as it lies under the peduncle of the flocculus and disease of the cerebellar nuclei of Deiter's nucleus or the other vestibular nuclei. In every case of disease of the vestibular nerve or its nuclei, we have two disorders of equilibratory orientation (true rotation and titubation). This is the first stage in the equilibratory mechanism at which titubation comes in as a clinical symptom. A lesion situated any where from this point to the temporal cortex may cause titubation.

In the cerebellum, we have two distinct organs (the lateral lobes and the vermis). Whereas the vermis is concerned with rotation round a horizontal plane of the body, the lateral lobes are concerned with rotation round the vertical axis of the body and often in a circle with a wide rad-

ius. From either of these two organs or divisions of the cerebellum, we may get the rotation of a vertigo, localization of which is comparatively precise.

In disease of the posterior two-thirds of the temporal lobe, patients at least have that disturbance of equilibration, namely, titubation. These cases naturally present associated symptoms of hemianopsia and affection of smell and taste.

Treatment.—As regards middle-ear disease, we treat the disease of the bone and mucous membrane by ordinary surgical rules. As regards Meniere's disease—that is to say, where, in conditions of gout or allied state, congestion of the semi-circular canals has been diagnosed, and the cases have been referred to me with the view of the division of the eighth nerve—I can only say that, although I have been quite ready to divide the eighth nerve, I have never yet done so. The only reason I can assign is that I usually have advised that such cases should be treated first with (1) Weir-Mitchellism, (2) with hydrobromic acid, and (3) with anti-gouty treatment, and they have not returned. Whether the treatment has been successful and the operation rendered unnecessary I cannot say, or whether the patients have taken other advice. With regard to disease of the central apparatus, such disease is almost invariably a new growth, and then treatment becomes simply a question of removal of the growth in accordance with the localization of its seat.—Victor Horsley, *The Journal of Laryngology, Rhinology and Otology*, August, 1905.)

Syphilitic Epilepsy.—J. T. Moore, Galveston, Texas (*Journal A. M. A.*, June 10), gives an account of a case of epilepsy occurring in a man 35 years of age who had suffered from an alleged fracture of the right frontal bone about five and a half years before, the epilepsy dating back about three years. Syphilis was denied. The convulsions began on the right side of the face and extended from there over the rest of the body. The focal symptoms did not warrant operation, and as there was some roughening of the tibia and some enlarged glands, he was given iodid of potash in gradually increasing doses. The attacks, however, became more frequent and severe, in spite of the use of bromids, chloral, etc., and in a few days he was put on 1/10 grain doses of bichlorid of mercury, with the result of rapid improvement and complete cessation of the attacks.

SURGERY.

Under the Charge of

MAX BALLIN.

Acid Intoxication and Late Poisonous Effects of Anesthetics. Hepatic Toxemia. Acute Fatty Degeneration of the Liver Following Chloroform and Ether Anesthesia.—Report of the case of a girl of twelve and one-half years old, who was operated upon for an ovarian cyst gangrenous after torsion of pedicle. Forty-four hours after the operation, delirium, coma. Slight fever developed terminating in death, 110 hours after the operation. The autopsy revealed local purulofibrinous peritonitis about field of operation and fatty changes in the liver, swollen spleen, slight nephritis.

Thirty (30) cases were collected of this important post-operative complication from the recent literature, 28 of which ended fatally. Experiments on animals have shown that this complication is mainly due to chloroform.

Following are the conclusions:—

1. Anesthetics, especially chloroform (ether to a very limited degree) can produce a destructive effect on the cells of the liver and kidneys and on the muscle cells of the heart and other muscles, resulting in fatty degeneration and necrosis, very similar to the effects produced in phosphorus poisoning.

2. The constant and most important injury done is that to the liver.

3. There are certain predisposing causes which favor this destructive effect of chloroform, among which are: (a) age—the younger, the more susceptible; (b) causes which lower the general vitality of the individual and probably the vitality of the liver cells, such as diabetes, previous recent anesthetics, infections from pus germs, diphtheria, intoxications from a dead fetus in the uterus, a gangrenous mass in the abdominal cavity, etc.; (c) exhaustion due to hemorrhage; (d) exhaustion due to starvation; (e) exhaustion due to wasting diseases, such as carcinoma; (f) lesions which resulted in extensive fatty degenerations, such as occur in the limbs of infantile paralysis; (g) chronic diseases involving both liver and kidney, such as cirrhosis and nephritis.

4. These toxins produce a definite symptom-complex which makes its appearance from ten to 150 hours after the anesthesia. This symptom-complex of vomiting, restlessness, delirium, con-

vulsions, coma, cheyne-stokes respiration, cyanosis, icterus in varying degrees, and usually terminates in death.

5. It is probable that milder degrees of this poisoning are recovered from and that the transient icterus noticed after chloroform anesthesia without other evident cause is due to such poisoning, and many cases which exhibit restlessness, fright, mild delirium, drowsiness, etc., after anesthesia may be due to the same cause.

6. Postmortem reveals fatty degeneration of the liver, fatty degeneration and mild degree of inflammation of the kidneys, and, in extreme cases, fatty degeneration of heart and other muscles.

7. This fatty degeneration of the liver with hepatic toxemia, following anesthesia is almost invariably due to chloroform in the fatal cases. Ether is seldom the cause of a death of this kind. —(Arthur Dean Bevan and Henry Baird Favill, *Journal of the American Medical Association*, Vol. XLV, No. 11.)

Pathological Spleen.—1. The more probable function of the spleen is the manufacture of red blood corpuscles, with the strong probability of an internal secretion of value in regulating the relative proportions of the various elements of the blood. 2. Splenectomy is contraindicated in leukemia, amyloid spleen, splenic hypertrophy secondary to hepatic cirrhosis, secondary malignant disease and in the essential anemias. 3. It is usually preferable to splenopexy in wandering spleen, which is almost always due to previous hypertrophy. 4. In splenic abscess, if successful drainage is possible, it is better than splenectomy, especially if the splenic tissue is not destroyed. 5. In case of cysts, benign tumors, tuberculosis and sarcoma, splenectomy is the operation of choice, unless in the three former conditions resection of the lower extremity of the organ will remove all the disease. 6. In rupture, the organ should usually be removed. The operation should be prompt and expeditious and with every expedient to relieve and to prevent shock. 7. In the severe type of malarial spleen, with failure of any medical relief, splenectomy will often result in cure. 8. In splenic anemia internal medication fails and the only recourse is to splenectomy, as early as possible, while the patient can endure the operation and before incurable complications have arisen.—(B. B. Davis *Journal of the American Medical Association*, September 2, 1905.)

GYNECOLOGY AND OBSTETRICS.

Under the charge of

B. R. SCHENCK.

When Shall the Cervix Uteri Be Repaired?—

Most obstetricians agree that laceration of the cervix uteri occurs in nearly every labor. This idea is so firmly fixed that if a cervix is seen without some sign of laceration it is believed to belong to a nullipara. About 25 per cent. of these lacerations heal spontaneously. As to the amount of harm resulting from unrepaired lacerations there is a great diversity of opinion. Emmet said that at least one-half of the ailments of women who have borne children were to be attributed to them, but the more mature judgment and experience of gynecologists teach that although there is exaggeration in this statement, there is much truth. On this point Gardner reviews the opinions of various authors.

The operation may be *immediate* (directly after birth); *intermediate* (from the fifth day to the end of the puerperium), or *remote* (any time after the puerperium).

Advantages of the Immediate.—It requires but a few minutes; it is painless or requires but a few more whiffs of chloroform, if the latter has been used; less inconvenient to physician and patient; can be done at home; prevents sepsis; removes the most frequent cause of subinvolution; no particular operation, device or instrument is necessary; it gives a good result and has been successful in the hands of able surgeons. *Disadvantages*—In 25 per cent. of cases, no repair is necessary; suture is difficult, because the cervix is stretched, swollen and distorted; bleeding obscures the field of work; puncture points of needles bleed about as freely as do the torn surfaces; sepsis may be carried by sutures, fingers and instruments; traction on the uterine supports may be productive of uterine prolapse or displacement; manipulation at this time may cause embolism; when shrinkage takes place, the surfaces are exposed to infection just the same as before suture; after contraction, the sutures hang like rings and accomplish nothing; it may interfere with drainage; assistance is necessary; deliberation and due care are impossible at this time; there is a bad effect upon the morale of the patient.

Advantages of Intermediate Repair—Less danger of infection; contraction has taken place and the approximation is more accurate and permanent; the patient is in better condition; time and assistance can be arranged to better purpose. The *disadvantages* are: It breaks into the convalescence;

second anæsthesia disturbs the nursing of the baby.

Advantages of the Remote Operation—Twenty-five per cent. heal spontaneously; even when there are moderate tears, there may be no symptoms; treatments will relieve symptoms. The *disadvantages* are: Many women will bear pain and suffering for many years without consulting a physician; health may be so undermined that it requires a long convalescence.

After discussing these points the author arrives at the following conclusions:

1. Many ills are the result of unrepaired lacerations of the cervix.

2. The frequency and extent of these tears may, to a certain extent, be lessened by allowing more time for dilatation in the first stages of labor; by a more judicious use of the forceps in time and force; and by the proper use of podalic version.

3. The most frequent cause of subinvolution of the uterus and prolonged convalescence is unrepaired lacerations.

4. In all probability many of the frequently quoted morbid conditions ascribed to lacerations are the result of infection of the lacerated surface rather than the laceration itself.

5. Many cases of severe hemorrhage are due to unrecognized cervical lacerations.

6. Immediate repair in the hands of an able surgeon-obstetrician is the best means of controlling such hemorrhage, and also of preventing infection of the torn surfaces.

7. Primary tracheloplasty is easily and quickly done, but a secondary repair is a difficult and tedious procedure.

8. In case of failure in obtaining union in the primary operation, the condition of the woman is none the worse, while if successful, which is usually the case with skillful surgeons, the patient is spared many of the ills which lacerations of the cervix sooner or later entail.

9. In regard to teaching medical students, it seems as if the matter should be fairly placed before them. Where hemorrhage persists with a well-contracted fundus, they should be taught to look out for spurting vessels in the lacerated cervix, and to suture. As to immediate repair without hemorrhage, they could be taught its advantages, and as in other departments of surgery, they should have deeply impressed upon their minds the evils which might arise from poor technique and lack of asepsis.—(Gardner: *Medical Record*, August 26, 1905.)

DERMATOLOGY, SYPHILIS AND CUTANEOUS RADIOTHERAPY.

Under the Charge of

A. P. BIDDLE.

The Diagnosis of Cutaneous Syphilis.—E. A. Fischkin, Chicago (Journal A. M. A., July 8), concludes from his observations and studies that the elements of diagnosis in cutaneous syphilis have only an arbitrary value. The element of time is unreliable; it may happen that simple sores with consequent gland swellings will develop in intervals corresponding to the periods of syphilis. Regionary lymphadenitis is not absolutely pathognomonic of syphilis. Indolent and indurated inguinal and cubital glands may follow infection of simple wounds. The ensemble of all syphilitic symptoms may be closely imitated by non-specific dermatoses. Syphilis can only be diagnosed with absolute certainty when based on positive as well as on negative findings, i. e., when we not only find the characteristic elements of syphilis, but when we can with certainty exclude all other skin diseases that may appear with similar symptoms.

Tooth and Nail Corrugations.—Excepting Hutchinson's notches, the corrugations of the teeth and nails are not much mentioned in medical literature, and G. Lenox Curtis, New York (Journal A. M. A., August 5), remarks that this neglect is a mistake and that they have a decided pathologic significance. From the study of many cases he is satisfied that the transverse lines on nails and teeth are caused by autointoxication resulting in rheumatism, and that the severer the attack the more prominent are they. Children whose mothers suffered from rheumatism during pregnancy and those that have rheumatism themselves during the period in which the enamel of the permanent teeth is developing show these corrugations. The longitudinal indentations on teeth and nails, Curtis thinks due to autointoxication from intestinal indigestion, and that white spots on the nails also indicate autointoxications. When these markings are absent, a corresponding absence of the diseases may be assumed. The nail markings have importance owing to the fact that they are temporary, being obliterated in a month or two by the natural growth of the nail. They are, therefore, indications of recent disease.

Syphilitic Spinal Paralysis, with Special Reference to the Type Described by Erb.—W. Dougherty discusses this syndrome, the distinguishing features of which, as described by

Erb, are feebleness in the lower extremities, more or less spasticity and exaggeration of deep reflexes, together with vesical and possibly rectal derangement and slight but quite constant disturbances of sensation. The lesion is not the expression of any definite pathological process, but Erb states that the main factor is the combined system disease by the side of which the transverse lesion appears as etiologically a quite permissible complication. According to the author, the time that has elapsed between the primary infection and the onset of symptoms indicating medullary involvement must be taken into consideration, and those cases developing within a few years after the luetic infection, even though slow in onset may be looked upon as an expression of secondary or tertiary syphilis, whereas, if a considerable period of time has elapsed before the beginning of the symptoms referable to the cord and changes must be due to what he calls the terminal syphilitic stage. He describes the histories and pathological findings in two cases of the former class, which lead him to conclude that it is the distribution and dissemination of the vascular lesion rather than any special difference in their nature which determines which type of spinal syphilis shall ensue, and that the so-called Erb's syphilitic spinal paralysis is not, as Erb is inclined to believe, necessarily dependent upon a system disease of the spinal cord.—*Medical Record*, August 5, 1905.

A System of Venereal Prophylaxis that is Producing Results.—G. Shearman Peterkin (Seattle, Wash.) says the education of the individual in the law of sex is the only feasible means, at our present stage of evolution, of lessening or preventing venereal diseases. From sociologic, economic, ethic and physiologic laws, etc., scientific facts are taken as premises, and from these conclusions drawn to prove that this fact must be recognized. With these principles as a working basis, pamphlets—five in number—have been issued by a Committee on Prophylaxis of Venereal Diseases of the Washington State Medical Association. The pamphlets are appended in full, and Dr. Peterkin gives the reason for using them as a means of disseminating such knowledge and for presenting the amount and character of knowledge they contain. The position is taken that business principles of to-day can be ethically make his own morality, to the next succeeding evolutionary stage of his morality.—(*American Medicine*, August 19, 1905.)

THERAPEUTICS AND PHARMACOLOGY.

Under the Charge of

W. J. WILSON, JR.

The Treatment of Erysipelas by the External and Internal Use of the Tincture of the Chloride of Iron.—As regards the local application of this remedy in this disease. I have been unable in any literature to find any reference to its use. Various other procedures are mentioned, but in my experience none can equal in efficacy the local application of the tincture of iron. In this connection, however, it is well to state that the treatment as laid down by modern writers should not be neglected—scrupulous cleanliness, pure air, water, sunshine, etc., and a rigid antiseptic treatment of any existing wound, together with the general precautions commonly taken in other infectious maladies.

Case 1.—Miss 6, aged eighteen. The patient suffered a prolonged rigor followed by intense fever (105 deg. F.) with general malaria and vomiting, all symptoms in fact pointing to a severe infection. The following day an acute dermatitis beginning at the naso labial fold appeared, quickly followed by the whole side of the face assuming a swollen and characteristic hue, with burning heat and pruritus. Various well-known remedial applications were faithfully tried—antiseptic compresses, carbolic acid lotions, corrosive sublimate, tincture iodine, ichthyol, etc.

The erysipelatous inflammation continued to spread until the whole head was affected, scalp and all, so that it created a most decided deformity.

Internally quinine, aconite, phenacetine, etc., were prescribed in attempts to relieve the patient from the intense suffering without any appreciable results.

The patient seemed to go from bad to worse, with no improvement. Finally, the tincture of the chloride of iron was painted freely all over, the head, the hair having previously been cut to admit of the thorough application of the various other remedies. The effect was immediate: twelve hours after the first application the inflammatory symptoms subsided, and in a few days of continued use the patient was convalescing.

I would add that the iron was given in ten-drop doses internally every four hours as well. The method of applying, as I have stated before, was simply painting, once daily, the tincture of the chloride of iron all over the parts

affected, and beyond to healthy tissue, with a camel's hair brush, using no gauze or gum tissue to cover. It would appear in my experience that the local application was the true factor in subduing the external inflammation, by an almost specific action on destroying the specific coccus, as the iron was used internally in conjunction with other topical applications without like result.—(Sickell, *Therapeutic Gazette*, August 15, 1905.)

On the Treatment of Acute Summer Diarrhoea in Infants.—When seen in the early stages there can be no doubt as to the wisdom of the usual practice of giving a purgative and temporarily withholding all milk. The purgative commonly given is castor oil, and in the milder varieties of diarrhoea this acts admirably. In the acute form I prefer calomel for the following reasons: When vomiting is present castor oil is not likely to be retained, but there is a possibility of calomel being so, and in this last event the drug may be of service in the vomiting itself. Calomel, moreover, may act as a slight intestinal antiseptic. Further, it may act indirectly as a diuretic. The chief use of the calomel, of course, is to clean the intestine of any deleterious material and to check vomiting. For the treatment of the vomiting I know of no remedy so successful as that of washing out the stomach with warm water or a mild solution of bicarbonate of sodium. This is most readily and satisfactorily done by means of a soft rubber tube introduced through the nose. After washing out the stomach I often administer a tenth to an eighth of a grain of cocaine in a teaspoonful of iced water. The foregoing measures can be supplemented with safety by a mustard poultice to the epigastrium and the administration of a mixture of the carbonate of bismuth and bicarbonate of sodium along with a quarter of a minim of dilute hydrocyanic acid. The number of drugs that have been advocated for the treatment of diarrhoea is legion and their number is proof of their general inadequacy. By trustworthy authorities resocin, naphthol, salicylate of sodium, salicylate of bismuth, salol, carbolic acid, tannigen and numerous other drugs have been advanced as admirable specifics, but trial of most of them would not lead me to place any great reliance on any one of them.—(Coutts: *The London*, July 29, 1905.)

BACTERIOLOGY AND PATHOLOGY.

Under the Charge of

H. S. OLNEY.

A Simple Stain for Spirochaeta Pallida.—Oppenheim and Sachs have used with success the following method for demonstrating the presence of Spirochaeta in syphilitic material.

A very thin spread is made on a cover glass and is allowed to dry in the air. Without any previous fixing, it is then stained with alcoholic carbo-gentian violet solution, which is composed of 5% carbolic acid solution 100 ccm., and concentrated alcoholic gentian violet solution 10 ccm. The cover glass is held over a Bunsen burner while staining, until vapor arises. Then it is washed carefully in water to remove excess of red blood cells (as these can be removed without disturbing the Spirochaetae), dried between filter papers and mounted in balsam. The Spirochaetae are stained blue and have a larger diameter than those which have been fixed, as the fixing tends to shrink them. The advantages of this method of staining are, the easy finding of the Spirochaetae and the quickness and simplicity of the procedure.—(*Deutsche Medizinische Wochenschrift*, November 29, 1905.)

Primary, Non-Gonorrhoeal Urethritis Due to the Influenza Bacillus.—A young man, twenty years old, had a urethral discharge for two and a half weeks. On examining the discharge microscopically Cohn found no gonococci, although repeated search was made for them. However, a bacillus was isolated which morphologically, culturally and in staining reactions was identical with the influenza bacillus, and he regards this as the cause of the urethritis and cites other cases of non-gonorrhoeal urethritis where several different germs have been found. His case was very resistant to treatment and was not cured after eight weeks in the hospital. There was also a slight epididymitis and cystitis complicating the urethritis.—(*Deutsche Med. Wochenschrift*, Nov. 29, 1905.)

Causes of Gallstones.—Beer comments on Nannyn's theory of gallstone formation: i. e., that stagnation of the bile plus inflammation of the mucosa of the bile passages causes stone formation. He thinks there is another factor. His contention is supported by the results of twelve autopsies. In each of these cases the common duct was occluded for more than 4 or 5 weeks and more or less severe inflammation of the extra and intra hepatic ducts existed. In seven of the cases the obstruction was caused by calculi

and in five by tumors of various kinds. He argues that if stones are caused by bile stagnation plus mucosa infection, each of these cases ought to show calculi formation in the bile passages of the liver. But in only the seven cases where the occlusion was caused by a calculus in the common duct were stones found in the liver ducts. That is, in only those cases which had had previous gallstones, were there calculi in the liver ducts. Therefore, there must be a third factor in the causation of bile calculi. "Diathesis" is too vague a term. Possibly it is faulty hepatic metabolism.—(*American Journal Medical Sciences*, September, 1905.)

Blood Examinations in Pulmonary Tuberculosis Conclusions.—1. In pulmonary tuberculosis without cavity formation a mild anemia, with a decrease in erythrocytes and a relatively greater decrease in hemoglobin is constant.

2. From the standpoint of prognosis, an increase of erythrocytes, in cases without cavity formation, is of favorable significance.

3. In advanced cases a decrease of leukocytes is of unfavorable import.

4. The actual increase of lymphocytes seems to correspond to the increase of resistance on the part of the organism to the tuberculous infection, but further study is required to confirm this.

5. The transitionals seem to follow the same rule as the lymphocytes in this regard.

6. At the beginning of the investigation the eosinophiles seemed to increase with the patient's improvement, but further study did not support this view.—(*Ullom & Craig, American Journal Medical Sciences*, September, 1905.)

Blister Fluid from Scarlet-Fever and Measles.—I believe that the bodies found in sections of skin from cases of measles and scarlet-fever are part of the protoplasm of the epithelial cells which has been so changed in its chemical nature that its staining reaction differs from that of the surrounding protoplasm. The small, round, extracellular bodies found in the living patients may arise from degenerating cells, but I can not demonstrate this origin with certainty. It certainly can not be stated that none of these bodies is a protozoan, but it can be positively stated that a great majority of them arise from degenerating cells; and in many cases, I think, it is not possible to differentiate a degeneration from a protozoan by the study of its morphology and staining reactions.—(*C. W. Field, The Journal of Experimental Medicine*, Vol. 7, No. 4).

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Original Articles

A PRELIMINARY NOTE ON THE STERILIZATION AND ABSORBABILITY OF CATGUT.*

CHARLES B. NANCREDE, F. R. WALD-
RON AND C. F. TENNEY,

Ann Arbor.

Hundreds if not thousands of pages have been written, each new paper asserting that the ideal suture or ligature has been at last discovered, but the fact that new methods are still being invented is a strong argument that the end is not yet. The present work is a preliminary effort to put on a demonstrative basis the questions: (1) as to what are the best materials for ligatures or buried sutures; (2) which is the easiest and at the same time the most reliable method of sterilization; and (3) what is the durability of absorbable material when buried deeply in the tissues. We are led to question most of the statements made concerning the durability of ligature materials prepared by some of the leading manufacturers as well as by our own methods, by their early disappearance on the one hand and their apparently absolute permanence when expected to disappear in from 30 to 40 days. Thus it will be seen that chromicized kangaroo tendon, which

is supposed to be absorbed in about six weeks, was found unchanged when case No. 554, 1903, came back for a reopening of the wound fifteen months later.

The qualities of an ideal suture or ligature, beyond ease of mechanical application, are durability until healing has taken place, disappearance after this time, primary asepticity and the maintenance of this quality. Primary asepticity is secureable we believe for any ligature or suture material, but absolute maintenance of this is only certain with substances such as silver wire and silk worm gut, which cannot be penetrated by germs or their products, i. e., are non absorbent. Upon the other hand the presence of these by their mechanically irritating the tissues, has again and again led to late infections and the necessity for their removal. Absorbable ligatures can only be certainly maintained aseptic, if they are not to rapidly disappear, by their saturation with some germicidal substance, which will slightly, if at all, lower the tissue resistance. If, at the same time, this chemical can increase the life of the suture or

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ligature sufficiently to secure mechanical stability until an unyielding union has been secured, the ideal preparation has been obtained. We must emphasize what has been too often overlooked, that eventually the stability of the wound must depend upon its inherent capacity to resist stretching, not on the mechanical support afforded by nonabsorbable sutures, because the moment the sutures become tight by stress on the tissues, hyperæmia is induced, the tissues revert to the cellular state, and the mechanical support of the stitch ceases to be effectual, because it cuts loose on one side or the suture becomes entirely free, lying in a bed of granulation tissue.

The primary quality when an absorbable material is used is its freedom from all pathogenic organisms and especially from the spores of anthrax. The absence of these latter may be secured by employing animal tendons, but as catgut is practically the only material fitted for the majority of purposes, the danger of anthrax is a very real one.

Innumerable methods will secure against everything hurtful except anthrax; only a few are sure to destroy this germ or its spores, such as prolonged high temperature, but many inconveniences may attend the employment of caloric which, even when most carefully done, usually materially reduces the tensile strength.

A series of experiments undertaken at my instance by Dr. F. R. Waldron in the Surgical Laboratory of the University of Michigan show that sterilization by the Claudius method is entirely reliable.

Strands of No. 2 Kny-Scherer catgut,

wound on glass rods and pieces of large white silk, were used.

Anthrax was grown on potato in the incubator at body temperature for 40 hours, when abundant spore formation was shown by the microscope. Large amounts of growth were thoroughly emulsified in sterile distilled water.

The catgut and silk were immersed in the emulsion for 24 hours at room temperature. They were then removed and dried for 24 hours in the incubator in sterile Petri dishes. Spores were demonstrated in the emulsion after removal of the suture material. As control, both catgut and silk grew anthrax abundantly in 24 hours when placed in beef tea.

The Claudius solution was made by grinding together one gramme of pure iodine crystals and one gramme of potassium iodide and adding 100 cc of distilled water. (This is not the manner of combination used by Claudius but the same proportions are used and a more complete solution of the iodine is obtained.)

The silk and catgut were immersed in the Claudius solution and removed at intervals as follows: Exp. 1—A piece of silk removed in one minute and put without washing in beef tea, showed no growth at the end of 48 hours and agar inoculated from the beef tea showed no growth. The piece of silk was transferred to a fresh tube of beef tea, which showed a growth in 24 hours. Anthrax was demonstrated in the latter.

Exp. 2—A piece of silk removed in one minute was washed in sterile distilled water until the iodine color had almost disappeared and put in a tube of beef tea. Anthrax was demonstrated in this in 24 hours.

Ex. 3—A roll of catgut, removed in

three hours, was washed in sterile water for $3\frac{1}{2}$ hours and put into a tube of beef tea. The gut was still very black after washing, but was completely bleached during the first 24 hours in the beef tea, during which time no growth was apparent. It was then put in a fresh tube of beef tea, this process being repeated three times with no growth.

Exp. 4—A piece of silk removed in $2\frac{1}{2}$ hours was washed in 200 cc of sterile distilled water for three and one-half hours, when it was still a good brown. It was then put in a tube of beef tea which bleached it completely but showed no growth. Four changes of beef tea failed to show any growth. The silk was then placed in the subcutaneous tissues of a guinea pig which showed no ill effects after forty days.

Exps. 5, 7, 9, 11, 13, 15 and 17, rolls of catgut removed at 24 hours intervals, were treated as in exp. 3, none of them showing anthrax. Exps. 6, 8, 10, 12, 14, 16, and 18, pieces of silk removed at 24 hours intervals, were treated as in experiment 4, none of them showing anthrax.

Conclusions—1. That the iodine carried over on the suture material will prevent growth of anthrax spores until sufficiently diluted.

2.—That silk and catgut, soaked in an emulsion of anthrax spores for 24 hours and thoroughly dried, are rendered free from living organisms by at most $2\frac{1}{2}$ to 3 hours immersion in the Claudius solution.

The silk was used for the animal experiments because it was not thought that the spores would penetrate the gut. It is not considered proven by these experiments that gut from an animal dying or affected with anthrax, in which the spores

may be deeply incorporated in the gut, is made sterile by this process, but pieces of No. 1 and No. 2 gut, exposed to Claudius solution for eight days, mounted in paraffin and sectioned, showed microscopically an even penetration of the iodine which, in connection with these experiments, makes sterility seem likely.

SECOND SERIES.

Pieces of coarse cotton, grocer's twine, were soaked for 24 hours in emulsions made up of distilled water and potato cultures of anthrax, potato and hay bacilli, all showing abundant spores. Cover glasses were also smeared with these same potato cultures, both twine and cover glasses were afterwards very thoroughly dried in the incubator. As control both pieces of twine and cover glasses grew their respective bacilli when put untreated into tubes of beef tea.

The pieces of twine and cover glasses so prepared were all immersed in the Claudius solution and removed at intervals as follows:

Exp. 1—A piece of twine, removed in five minutes, was washed in a solution of sodium hyposulphite until the iodine color was removed, then washed in sterile distilled water and put in a tube of beef tea. There was a growth of anthrax in 24 hours.

Exp. 2, 3—Piece of twine which had been in the hay and in the potato emulsion removed in five minutes and treated as in experiment 1 showed growths of their respective organisms.

Exp. 4, 5, 6—Pieces of twine removed in five minutes, thoroughly washed in sterile distilled water until the iodine color was almost removed showed growth of their respective bacilli, after being in beef tea for 24 hours in the incubator.

Exp. 7, 8, 9—Pieces of twine removed at the end of five minutes were put in tubes of beef tea without any treatment and failed to show any growth at the end of 24 hours in incubator. After being transferred to fresh tubes of beef tea, there were growths of the respective bacilli in 24 hours.

Exp. 10—A cover glass, removed at the end of 30 minutes, was washed in the sodium hyposulphite solution until free of iodine color, then washed in sterile distilled water and put in tube of beef tea. This was grown at incubator temperature for 24 hours, when a growth of anthrax was proven.

Exp. 11, 12—Repetitions of exp. 10 with cover glass smeared with hay and potato spores also gave a positive result.

Exp. 13—A piece of anthrax twine, removed at the end of 24 hours from the Claudius solution, bleached in sodium hyposulphite and washed in sterile distilled water, was put in a tube of beef tea. No growth in 24 hours after repeated transfers.

Exp. 14, 15—Repetition of exp. 13 with hay and potato twine gave negative results.

Exp. 16—Three cover glasses smeared respectively with hay, potato and anthrax spores, were removed in 24 hours, washed in sodium hyposulphite solution and sterile distilled water and put in tubes of beef tea, all failed to show growth.

On each succeeding day for three days, anthrax twine and cover glasses were removed, treated as in the preceding experiment with no growth.

After the first 24 hours, the iodine in the Claudius solutions which contained

the hay and potato twine were thrown out of solution, probably by the large amount of organic matter carried over by the twine from the emulsions.

As control, several drops of the sodium hyposulphite solution, used to neutralize the iodine and several drops of the Claudius solution were added to tubes of beef tea. These were inoculated with hay, potato and anthrax emulsions and all grew their respective bacilli abundantly.

Conclusion—1. That heavy cotton grocers' twine, soaked for 24 hours in an emulsion of the spores of anthrax, hay or potato bacilli, and thoroughly dried, is rendered free from living organisms by at most 24 hours exposure to the Claudius solution.

2. That cover glasses, smeared with potato cultures of anthrax, hay or potato bacilli containing spores, and thoroughly dried, are rendered free from living organisms by at most 24 hours exposure to the Claudius solution.

Tensile strength, first series—For this series, No. 2 Kny-Scherer gut was used, each ten foot length being divided into three equal pieces one of which was not treated but kept for control, one was treated by formalin, by the method recommended by W. J. Stone, and the other was put without preliminary treatment into the Claudius and other iodine solutions. Those treated by chemicals were wound on glass rods. All were soaked in 3 per cent. carbolic solution, as recommended by Claudius before testing.

The figures given in the tables below are pounds of tension required to break the gut.

1. Full strength Claudius used.

	Formalin.	Claudius.	Untreated.		Formalin.	Claudius.	Untreated.
	4.5	11	9.25		7	6.5	6
	6	2.33	8		8	6.5	6
					8	8	8
					8	7	8
Total	10.5	13.33	17.25	Total	31	28	28
Average	5.25	6.66	8.67	Average	7.75	7	7

2. Half Strength Claudius used.

	Formalin.	Claudius.	Untreated.
	10	7	8.5
	10.5	9	9
	6.5	4	8
	7.5	4	9
Total	34.5	24	34.5
Average	8.5	6	8.5

3. One-fourth strength Claudius used.

	Formalin.	Claudius.	Untreated.
	9	8	10.5
	9	7.5	10.5
Total	18	15.5	21
Average	9	7.75	10.5

With knot.

	Formalin.	Claudius.	Untreated.
	6.25	6	4.25

4. One-sixteenth strength Claudius.

	Formalin.	Claudius.	Untreated.
	9	7.5	8
	7	7.5	8
Total	16	15	16
Average	8	7.5	8

With knot.

	Formalin.	Claudius.	Untreated.
	6.5	6	6.5

5. Iodine one gramme. Absolute alcohol 100 cc.

6. Iodine one gramme. 50 per cent. alcohol, 100 cc.

	Formalin.	Claudius.	Untreated.
	8.5	6.5	4.5
	10	8	6
Total	18.5	15.5	10.5
Average	9.25	7.25	5.25

With knot.

	Formalin.	Claudius.	Untreated.
	6	6.5	5.5

7. Iodine one gramme, potassium iodide one gramme. 30 per cent. alcohol 100 cc.

	Formalin.	Claudius.	Untreated.
	9.5	3.	8
	9	3.5	8
Total	18.5	6.5	16
Average	9.25	3.25	8

With knot.

	Formalin.	Claudius.	Untreated.
	5	3	5

2nd series, No. 1 Kny-Scherer gut after the division into three pieces as before, was rolled with no pressure or confinement: this was done because of the marked physical change and loss of tensile strength of some of the gut, carefully rolled on glass rods in the first series. Ten foot strands from the same roll were used, one series of ten untreated, one

series treated by formalin 4 per cent. for 36 hours and washed in distilled water for 12 hours, one series with second formalin series, being immersed in the Claudius solution for ten days. The formalin and plain Claudius series with half the untreated series were immersed in plain water before testing. The other half pieces of the untreated series were tested dry as shown by the tables.

Iodine before immersion of gut 9.4 Mg. per cc., Iodine after ten days immersion of gut 1.14 Mg. per cc.

Formalin.	Claudius.	Un- treated. wet.	Un- treated. dry.
1. .75		1	4.
with knot .5	1.	1	2.25
2. .5	1.75	2	4.5
with knot .5	1.5	1.5	2.
3. .75	2	2.5	4.5
with knot .5	2	2	3
4. .25	.25	1.5	4.5
with knot .25	.25	1.5	3
5. .5	.5	1.	3.5
with knot .25	.25	.5	1
6. 1.25	2	1.75	4.5
with knot 1.5	2	2	2.5
7. .25	.25	1	4.5
with knot .25	.25	.5	2
8. .5	1.5		1.25
with knot .25	1.5		1
9. 1	3	2.5	6.5
with knot 1	2.5	2	3.5
10. 1	1.75	2	6.5
with knot 1	2	2	4.
Totals 6.75	14.5	15.25	44.25
with knot 6	13.25	13	25.25
Average .675	1.45	1.69	4.455
with knot 6	1.325	1.44	2.525

First tensile strength experiments. Conclusions:

1.—That tight winding of the gut markedly affects the gut physically and reduces the tensile strength.

2.—That solution of iodine and potassium iodine do reduce somewhat the tensile strength of the gut.

3.—That more dilute solutions do not obviate this drawback except the most dilute examined (No. 4, 1st series) which

is probably not sufficiently germicidal.

4.—That alcoholic solutions preserve or increase the tensile strength except in dilutions which require the addition of potassium iodide to put the iodine in solution.

5.—That with a knot in the continuity of the gut, greater tension was almost invariably necessary to break the iodine gut than the wet untreated gut.

6.—That the iodine gut is apparently somewhat more elastic than the wet, untreated gut.

Second series of tensile strength, experiments. Conclusions:

1.—That the tensile strength of No. 1 gut is lowered by the exposure to the Claudius solution, more so in case it has previously been exposed to formalin.

2.—That certain pieces of gut are absolutely worthless as ligature or suture material after exposure to the Claudius solution.

3.—That with a knot tied in continuity the relative loss of strength is much less.

4.—That in replacing unused gut in the Claudius solution, aseptic gut only must be replaced, as the iodine was present in the solution in less than one-eighth its original strength. The gut was kept in a glass stoppered bottle tightly closed.

Points yet to be determined:

1.—Is the alcoholic solution of iodine as germicidal and penetrating as the watery?

2.—Has the potassium iodide any effect on the tensile strength of the gut or upon the value of the solution as a germicide?

3.—Are there chemical constituents in some gut which react to iodine in a way unfavorable to the tensile strength?

The preliminary notes on the absorbability of chromicized cat gut, which were

as follows were made by Dr. C. F. Tenney.

In the following experiments the approximate time for absorption was determined for cat gut, which had been chromicized in chromic acid solutions of different strengths. The cat gut used in the experiments was prepared at the University hospital in brief as follows: strands of gut about five feet long are wound into skeins and these skeins are immersed in chromic acid solution for 48 hours. This solution is prepared by adding to a 5 per ct. carbolic acid sufficient chromic acid to render the solution of the desired strength. The skeins are then placed in a dry heat sterilizer at a temperature of 80 degrees C. for three hours, which suffices to drive off the moisture. The dried skeins are then boiled in absolute alcohol for three hours, the next day the boiling is repeated for five hours and on the third day for ten hours. The gut is then placed in sterile glass tubes and the tubes are sealed in the flame.

In the experiment to be described below, rabbits were used in testing rapidity of absorption of the cat gut, and all anti-septic operative precautions were taken.

Experiment 1.—Gut from 1-4000 solution of chromic acid was loosely wound into three bundles of a few strands each. Bundle number one was placed in the peritoneal cavity, number two in the abdominal muscles and number three in the superficial fascia of an animal. These three bundles were removed at the end of twenty days and allowed to dry in the air. Upon examination, it was found that while the three bundles were about equally absorbed, a slightly greater degree of absorption was found in the case of the muscle bundle. They were about one-

half absorbed and retained fully one-third their original strength.

Experiment 2.—Since the greatest absorption seemed to be in the muscle, the muscles of the right thigh of a rabbit were next used and three more bundles of gut from a 1-4000 solution were tested. The first bundle was removed at the end of twenty days, the second bundle at the end of thirty days and the third bundle at the end of forty days. Bundle number one corresponded to the muscles bundle of experiment one and about the same absorption took place. Bundle number two was two-thirds absorbed and a strand of it was very easily broken, while bundle number three was a white, softened mass, all of its original form and strength gone.

Experiment number 3.—In this experiment three bundles of gut were inserted in the thigh muscles as before. Bundle number one was from 1-5000 solution, bundle number 2 from 1-6000 solution and bundle number 3 from 1-7000 solution of chromic acid. These bundles were all removed at the end of twenty days and upon examination it was found that the degree of absorption increased as the strength of solution had decreased. Bundle number one, while still retaining its form had lost its strength, only a slight pull being necessary to break it. Bundle number two was very friable and would not withstand the slightest pull, while bundle number three was a softened mass. A strand of gut from 1-8000 solution was used for interrupted sutures in uniting the skin edges; the tie ends could be separated from the skin at the end of ten days.

By way of conclusion, our experiments tend to show that the 1-4000 gut becomes absorbed in 15 days, the 1-5000 gut in about 20 days, the 1-6000 in 15 days, the 1-7000 in 12 days, while the 1-8000 gut becomes absorbed in the tissues in about ten days.

THE MEDICAL INSPECTION OF SCHOOLS.*

GUY L. KIEFER.

Detroit.

A systematic medical inspection of schools has been in vogue in Europe for a number of years, but in this country it was first introduced in the public schools of Boston in 1894. Since that time many cities have adopted such a system of inspection. There are several results to be accomplished by this work. The first and primary reason on account of which this work is done is for the prevention of the spread of communicable diseases, by excluding from school and subsequently quarantining any unrecognized or undetected cases of such diseases as may have found their way to school. The second object is to discover children with diseases that are not contagious or with removable physical defects, which interfere with their progress in school. Under this head would come a systematic examination of the eyes and ears of children, and this subject has been taken up, as you know, by this society and is being worked out for the whole state by a committee to which it has been referred. The third purpose of medical inspection of schools is to note the growth and development of school children. This question is of great importance and is, indeed, a study in itself. The relation of a child's physical growth and development to its capacity for mental work has been definitely established and should be considered by parents, educators, physicians, and sanitarians.

All of the above inspections have to do directly with the school children but along with this work there should be an

examination of the school buildings with special reference to their heating and ventilation and all school authorities should be required to bring the sanitary condition of the buildings up to an established standard.

The work undertaken in Boston in 1894 was soon followed in New York, Chicago, Philadelphia, Detroit and many other cities, until now it is practiced in one or more of its phases in a great many cities all over the country.

In Detroit a daily medical inspection of school children for the purpose of detecting and excluding contagious diseases was inaugurated in February, 1902, and about the same time a systematic study and examination of the air in school rooms and buildings was begun. The medical inspection was first done by volunteer inspectors, inasmuch as no money was available for the purpose. The general plan is similar to the one employed in Chicago and is as follows: A medical inspector visits each school in the morning at about the same hour every day. Before his arrival each teacher will have sent to the principal's room any pupil who may be suspicious of having some communicable disease or who has been absent from school. The medical inspector immediately examines all pupils thus detained in the principal's room and any child found with a communicable disease or any symptoms of such disease is at once sent home with a card signed by the principal of the school informing the parents of the child's condition and advising them to send for a physician. In no case does the medical inspector prescribe for the child or have

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anything to do with it except at school. Whenever a child is excluded on account of a disease required to be quarantined by the Board of Health, notice is sent immediately to the Health Officer. The home of the child is then quarantined and the school, or at least the room from which the child was taken, promptly and thoroughly disinfected. For the examination of throats of children the inspectors are provided with wooden tongue depressors, each one to be destroyed immediately after using.

This plan was, as I have said, adopted in Detroit in February, 1902, and the work done by the volunteer physicians. The results obtained by this experiment in four schools were so satisfactory that on March 1st of the same year twenty-six schools were added to the list and on May 1st the number was increased to fifty, with one volunteer inspector working daily in each school. The following school year, the work was continued in the same manner and in the spring of 1904 an appropriation was granted for the purpose of carrying on the work in the fall. The amount allowed was \$2,500, consequently the work had to be distributed so as to cover all of the public schools. There are now ten inspectors working, each one visiting seven schools daily. The work is done in the same manner as before except that each physician has seven schools to visit in place of one. Besides these seventy schools, we are now inspecting four parochial schools and next school year we hope to cover all of the parochial and private schools and in this way offer protection against contagious disease to every school child in Detroit. The work in the private schools is being done by volunteer inspectors.

The diseases for which children are excluded from Detroit schools are as follows: Scarlet fever, diphtheria, tonsillitis, measles, roetheln, mumps, smallpox, chicken-pox, whooping-cough, pediculosis, ringworm, impetigo, scabies and contagious eye diseases. To give you an idea of the scope of the work done during the past year allow me to cite a few figures. The total number of pupils examined during the year to June 1st, was 24,096, number excluded, 1678. Of these exclusions, 17 were for scarlet fever, 21 diphtheria, 570 tonsillitis, and there were 372 cases of pediculosis. From these figures as samples, some of the results may be deducted. Now let us look at some individual cases: On October 25th last, Reuben S. returned to school after having been absent two days. Dr. Hills examined the child and found him to have symptoms of scarlet fever. The patient was sent home as were also his brothers and the health officer notified. After the diagnosis had been verified, the house was quarantined. On November 11th another child in the same family came down with the disease. Had it not been for the examination at the school, the first case would have remained in the school room during the period of desquamation and a number of cases would undoubtedly have resulted. As it was, no additional cases followed. Again on Nov. 10th, Dr. Kuhn excluded from the Campau School, Helen W., who had remained at home for a day on account of a sore throat. A culture was taken which showed the case to be one of true Klebs-Loeffler diphtheria. On Nov. 2nd, a case of diphtheria was excluded from the Newberry School. Dr. Richards on that day examined the throats of all of the children and ten were excluded for tonsillitis.

Bacteriological examination showed that two of them were diphtheria. It is reasonable to suppose that all of these children with their inflamed throats would have contracted diphtheria had they been exposed to the disease for a longer period. On Nov. 12th, two children were excluded from the Alger School and one of them was found to have diphtheria and again on Nov. 17, Dr. Fraser excluded Jeanette B. from the Berry School because he suspected diphtheria. A subsequent clinical and bacteriological examination confirmed the doctor's suspicion. On Nov. 23rd, Dr. Hills called me up and reported that George C. had returned to school after an absence of two days and the doctor gave it as his opinion that the boy had scarlet fever. The diagnosis was found to be correct and the boy was quarantined at home. These cases are only a few of the sixteen hundred children that have been excluded during the past year but I have cited them to emphasize the importance of this work. Detroit has had less contagious diseases during the past year than for some years previous and to any one who has studied our table of exclusions during that time, the cause must be very apparent.

As regards the examination of the eyes and ears of school children, this question is of equal importance with the exclusion of cases of contagious disease. Many a child has been considered stupid or backward when the trouble was, in fact, due to a physical defect which could be easily removed. School headaches and various nervous symptoms may be due to defective vision of which the child is unconscious. When the defects are slight a simple arrangement of seats may relieve the child's difficulty, and when this does not suffice, the oculist or aurist may be

relied upon to restore the normal vision or hearing and the obstacle under which the child has been laboring will be removed. Not only is attention on the part of the state to these matters desirable, but it is imperative. If the government makes it compulsory for a child to attend school it should look after the physical as well as the mental improvement of the individual whose charge it has undertaken. In Detroit we have made arrangements to add this phase of medical school inspection next year. The various teachers have been given instructions in the method of selecting pupils so that those who show any signs of physical defects may be carefully examined. Dr. Walter R. Parker has volunteered to look after this work and he will, with several assistants, make the examinations and keep such records as will be necessary to make the work valuable as the children pass from grade to grade.

The third purpose of medical inspection of schools, namely to note the growth and development of the children, will be conducted hand in hand with the eye and ear examinations. It is my intention to attend to this part of the work personally with Dr. Parker, keeping a proper card register of the child's measurements together with a record of a careful physical examination.

The examination of the air in school buildings was, I believe, first undertaken in Detroit. I do not know that many other cities have taken it up, but we believe that the results obtained have been very satisfactory. In January, 1902, this work was begun, upon recommendation of Commissioner Douglas, by the Sanitary Engineer and the Chemist of the Board of Health and a series of air examinations were made in thirty-five schools. In

speaking of the nature of the work done, Sanitary Engineer Raymond says in his annual report of that year:

"The past winter a series of tests were conducted by the chemist and myself to determine the quantity and quality of the ventilation of our public schools. The information sought was obtained as follows: The quantity of fresh air was determined by the computation from the dimensions of the air flues and air velocities as found by measurement and by anemometers. Many readings were taken to find the true average flow. Velocities vary continually from changing conditions in furnace heated buildings. This is true to some extent in the fan schools, as the velocity of the wind is felt under any system. In our modern plants provision is made to relieve some rooms and increase in others as occasion demands, maintaining a fairly uniform rate of flow. The quality was measured by two tests, one for the amount of moisture in the air and the other for carbon di-oxide, the latter being made by the chemist and described by him in his report. To find the amount of moisture a swing psychrometer and the psychrometric tables of the United States Weather Bureau were employed." Mr. Tibbals, in his report speaking of the determination of the amount of carbon dioxide in the air, says: "The determination of carbon dioxide is the best means we have of ascertaining the actual condition of the air in the school room, not because the carbon dioxide is the dangerous part of respired air, but because the quantity exhaled is believed to be directly proportional to the amount of certain poisonous substances of an unknown nature, given off in the breath, and subsequently is a comparative measure of these substances." Again he

adds: "The quantity of carbon dioxide in the outside air is always greater in cities and towns than in the country. A series of estimations made in Detroit gave results varying from 3.05 to 4.2 with an average of 3.54 parts in 10,000 parts of air. Authorities differ as to the quantity admissable in a school room, but most of the best sanitarians now require that it shall not exceed seven parts in 10,000."

Taking the results obtained in the tests above referred to, I carefully studied them and compared them with the contagious disease reports to determine, if possible, the relation existing between the two. It was found invariably that in the schools in which the amount of carbon dioxide in the air was high, i. e., above 9 parts in 10,000, the number of cases of communicable diseases was correspondingly large. Not only was this true, but I have determined further that when, for example, there were two schools in the same locality, the one in which the ventilation was poor, showed considerable sickness among its pupils, whereas in the other, the number of cases of communicable disease was comparatively small. I have in mind two schools in particular, both situated in the same locality only a short distance apart. The one, a public school, makes a showing of 6.1 parts of carbon-dioxide in 10,000 of air, while the other, a parochial school, shows 28 parts in 10,000. The former is a school from which we have but few cases of communicable disease, while the latter is one, the pupils of which are constantly on the sick list. Again I may mention one of the older public school buildings. An examination of this building last year showed 11.9 parts in 10,000. A study of the contagious disease reports show scarlet fever prevalent

in this school and recurrent in spite of thorough disinfection. As a result of these investigations, the Board of Health has established a standard of ventilation for schools, requiring that the air shall not contain more than nine parts of carbon dioxide in 10,000 of air. In a number of schools, the ventilation has been improved, and the one old public building above referred to has been condemned and will be replaced next fall by an entirely new one.

Another reform that is suggested by the examination of air in school buildings and by a study of the number of cases of illness found in poorly-ventilated schools is a shortening of the daily school sessions.

We have seen that in a number of instances the air in the school rooms undoubtedly contains the germs of specific diseases and the children confined in this atmosphere succumb to them. But is it not fair to surmise that a great many of the little ones would be spared even after this exposure if it were not continued too long? In other words, if they were not kept in these ill-ventilated rooms until all their powers of resistance had been used up but were allowed to go out into the fresh air, is it not probable that some of them would resist the infection? This is possibly a new argument in favor of shortening the school sessions but it is for that very reason that I present it. There are other and even better reasons why little tots ranging in ages from 7 to 12 should not be confined in school rooms for five or six hours a day, but a discussion of them at this time would lead us too far from the subject under consideration.

In conclusion let me say that the medical inspection of school children is well

received by parents and teachers. I have in my desk at the present time a number of letters from school principals, commending our work of last year and expressing the wish that it be continued. The physicians assure me that although they meet with objections from parents occasionally, it is the rule that the work meets with general approval and one of the most marked results that has been noticed by both teachers and medical examiners is the fact that parents have been taught to be more careful of their children. More attention is paid to the personal appearance and cleanliness of the child and also to its physical condition.

With so much good accomplished by a system of medical inspection whose prime object has been the restriction of communicable diseases, we can readily see and confidently predict that as the scope of the work is enlarged along the lines mapped out in this paper, the results obtained will be correspondingly gratifying.

Patent Urachus.—George Tully Vaughan (Washington, D. C.) gives a review of 52 cases of this rare condition and reports one of his own complicated with stones in both kidneys, which were successfully removed at two subsequent operations. He explains the defective development in the embryo which results in the formation of patent urachus and of Meckel's diverticulum. He mentions 4 kinds of patent urachus; the complete, the blind, the blind internal, and the blind external, and these may be congenital or acquired, some of the acquired varieties being caused by pressure of urine in the bladder opening Wutz's valve (a small valve which guards the bladder opening of the urachus) and allowing urine to enter the urachus. He thinks the best treatment is to dissect out the urachus, and sew or ligate the stump or opening in the bladder, after the manner of removing the vermiform appendix. A short space is given to tumors and cysts of the urachus. (*American Medicine*, October 14, 1905.)

OBSERVATIONS ON WOUND INFECTION FROM THE USE OF
ABSORBABLE ETAGE SUTURES.*SCHUYLER C. GRAVES,
Grand Rapids.

The object of the surgeon is to do his work as quickly as is convenient with safety and thoroughness; to inflict as little damage as possible upon the tissues; and to restore the parts as nearly as he can to the status quo.

Failure to recognize these points can mean the death of the patient or, on the other hand, post operative complications which constitute a perennial source of distress to the operator and may indirectly lead to a fatal tho' delayed termination.

An anaesthesia too prolonged, the infliction of too much trauma, can kill; while if we exclude the lethal element which certainly resides in many complications the result of faulty technique in assisting toward a restitutio ad integrum, the accomplishment of the latter in such fashion as to make the structural differences "ante" and "post" as small as is actually possible (for some differences must obtain) stamps the surgeon as one who not only—and first of all—looks after the future safety and comfort of his patient; but shows that he has manifested that grasp of the subject of surgery which permits him to view things from an artistic as well as a purely utilitarian standpoint. Surgery is an art as truly as a science and the artistic side should not be overlooked.

Intimately associated with both the utilitarian and the artistic elements in surgery is the matter of etage suturing. I may go farther and declare that, in

furtherance of this idea, etage sutures should, as a rule, be absorbable. It is ideal to bring tissues together with material which after the accomplishment of healing suffers harmless disintegration and absorption.

I am aware of the fact that a considerable number of operators continue the use of unabsorbable material in this way; but the number, I venture to say, is daily decreasing. In my opinion it is doing violence to the tissues to force permanently upon them articles in which resides a lurking and constant danger of irritation, infection, suppuration and final expulsion. This all means risk to the patient; risk of distress; risk of incapacity; risk of death.

I know it is claimed, and with reason too, that thoroughly boiled, or otherwise aseptic, articles, unabsorbable by nature, will maintain an undisturbed residence in the tissues, especially silver by reason of its germicidal quality; but all of us have noted failure after the use of silver as after the use of other unabsorbable stuff. Some claim that silk will absorb. I think I can say I have noted myself the absorption of buried silk; but I would change the form of the verb and state that it may or can (under certain circumstances) suffer absorption and not will.

But to the point, ideal suturing must be of the etage variety and must, in the main, consist of absorbable material.

Surgeons formerly prepared their own sutures (catgut); but there can be no real dispute over the fact that, outside of especial hospitals, the operator must look to the commercial house for his supply.

*Read before the Surgical Section of The Michigan State Medical Society at Petoskey, 1905, and approved for publication by the Council.

In the execution of the ideal technique outlined above the ugly fact has repeatedly forced itself upon me that something is still lacking. Something, at least, prevents me from securing the perfect results for which I strive. I get suppuration all too frequently.

It was for the purpose of analyzing deductions therefrom that this paper was undertaken. I have charted two series of cases, mostly celiotomies, in which wounds were closed by absorbable etage sutures; noting number, date, sex, type of

operation, hospital, variety and preparer of catgut used (catgut being practically the only absorbable material now employed by surgeons) and presence or absence of suppuration in healing. Naturally I have omitted septic cases from the start and also cases which died prior to the time required for pus to appear.

Series I comprises the cases operated during the year 1904 and Series II those operated during the first five months of the present year (1905). The number of cases in Series I is 35. The number in Series II, 19.

SERIES I.

NO.	DATE	SEX	OPERATION	HOSPITAL	PREPARER & VARIETY OF CATGUT	SUPPURAT'N
1	1- 6-04	Female	Hysterectomy (for fibroid)	Butterworth	Van Horn, chrom.	Absent
2	1-28-04	Female	Cholecystectomy	St. Mary's	Red Cross, plain	Absent
3	2- 2-04	Female	Liberation of Tubo-Ovarian adhes.	U. B. A.	J. Elwood Lee, plain and chrom.	Profuse and persistent
4	2- 4-04	Female	Herniotomy (Bassini's)	St. Mary's	Red Cross, plain	Moderate
5	2-13-04	Female	Hydro Salpinx (Intraligamentary Cyst)	U. B. A.	Elwood Lee, chrom.	Moderate
6	2-22-04	Female	Tubercular Peritonitis	U. B. A.	Elwood Lee, chrom.	Slight
7	3-31-04	Female	Retroflexion-Intra Abdominal shortening of Round Ligaments	U. B. A.	Elwood Lee, chrom.	Moderate but persistent
8	4-13-04	Female	Cystic Ovary	St. Mary's	Red Cross, plain and chrom.	Absent
9	4-18-04	Female	Appendectomy (Grid-iron op.)	U. B. A.	Elwood Lee, plain and chrom.	Absent
10	4-21-04	Female	Appendectomy (Grid-iron op.)	U. B. A.	Elwood Lee, plain and chrom.	Absent
11	6-23-04	Female	Appendectomy (Grid-iron op.)	Butterworth	Van Horn, plain and chrom.	Absent
12	6-28-04	Female	Appendectomy (Grid-iron op.)	U. B. A.	Elwood Lee, plain and chrom.	Absent
13	6-28-04	Female	Bilateral Intra-ligamentary Cysts.	U. B. A.	Elwood Lee, plain and chrom.	Profuse
14	6-28-04	Female	Umbilical Hernia	Butterworth	Red Cross, plain and chrom.	Very profuse
15	7- 1-04	Male	Bassini's	U. B. A.	Elwood Lee, plain and chrom.	Absent
16	7-25-04	Male	Bassini's	U. B. A.	Elwood Lee, plain and chrom.	Absent
17	8- 4-04	Female	Ventro Suspension	U. B. A.	Elwood Lee, plain and chrom.	Absent
18	8- 5-04	Male	Appendectomy	St. Mary's	Red Cross, plain and chrom.	Profuse
19	8-10-04	Female	Hysterectomy (for fibroid)	U. B. A.	Elwood Lee, plain and chrom.	Absent
20	8-25-04	Female	Ventro Suspension	U. B. A.	Elwood Lee, plain and chrom.	Absent
21	9- 6-04	Female	Bilateral Pyo Salpinx	U. B. A.	Elwood Lee, plain and chrom.	Moderate but persistent
22	9-14-04	Male	Bassini's	U. B. A.	Elwood Lee, plain and chrom.	Profuse
23	9-27-04	Female	Appendectomy (Grid-iron op.)	U. B. A.	Elwood Lee, plain and chrom.	Absent

NO.	DATE	SEX	OPERATION	HOSPITAL	PREPARER & VARI- ETY OF CATGUT	SUPPURAT'N
24	10-18-04	Female	Double Salpingo-Oöphorectomy	Butterworth	Van Horn, plain and chrom.	Absent
25	10-25-04	Female	Appendectomy (Grid-iron op.)	U. B. A.	Elwood Lee, plain and chrom.	Absent
26	11- 3-04	Female	Bassini's	U. B. A.	Elwood Lee, plain and chrom.	Very profuse and persistant
27	11-11-04	Female	Oöphorectomy and partial resect. of tube	U. B. A.	Elwood Lee, plain and chrom.	Moderate
28	11-12-04	Female	Unilateral Salpingo-Oöphorectomy	St. Mary's	Red Cross	Moderate
29	11-24-04	Female	Ovarian Dermoid and partial resection of tube and ovary	Butterworth	Van Horn, plain and chrom.	Moderate
30	11-26-04	Female	Double Salpingo-Oöphorectomy	Sanitarium, Charlotte, Mich.	Van Horn, plain and chrom.	Absent
31	11-30-04	Male	Suprapubic lithotomy	U. B. A.	Elwood Lee	Profuse
32	12- 6-04	Female	Cholecystostomy	Butterworth	Van Horn	Absent
33	12- 7-04	Female	Ventro Suspension	U. B. A.	Elwood Lee, plain and chrom.	Exceedingly profuse
34	12-13-04	Female	Dermoid Cyst, Double Salpingo Oöphorectomy and Ventro Suspension	U. B. A.	Elwood Lee, plain and chrom.	Slight
35	12-31-04	Female	V entro Suspension (Gill.)	U. B. A.	Van Horn,	Slight
			Breast A d e n o m a (Excision)		Samson & Sock	Moderate

SERIES II.

NO.	DATE	SEX	OPERATION	HOSPITAL	PREPARER & VARI- ETY OF CATGUT	SUPPURAT'N
1	1-25-05	Female	Cholecystostomy	U. B. A.	Elwood Lee, chrom.	Absent
2	1-28-05	Female	Ovariectomy	St. Mary's	Red Cross, plain subcuticular, other 2 wormgut	Absent
3	2-16-05	Female	Multiple Uterine Myomectomy	St. Mary's	Van Horn, chrom.	Absent
4	2-23-05	Female	Ventro Suspension (Gilliam)	U. B. A.	Samson & Smith, plain	Slight oozing sero-pus
5	2-23-05	Female	Appendectomy (Grid-iron)	U. B. A.	Samson & Smith, plain	Slight
6	3- 9-05	Female	Append. and liberation of bowel adhesions	U. B. A.	Van Horn, plain and chromicized	Quite free and persistant
7	3-11-05	Female	Ventro Suspension (Gilliam)	U. B. A.	Elwood Lee, plain	Absent
8	4- 8-05	Male	Cholecystostomy	Butterworth	Van Horn, chrom.	Absent
9	4-13-05	Female	Ventro Suspension (Mod. Gilliam)	U. B. A.	Van Horn, chrom.	Absent
10	4-16-05	Male	Herniotomy (Bassini)	Butterworth	Van Horn, chrom.	Absent
11	4-24-05	Female	Ventro Suspension (Mod. Gilliam)	U. B. A.	Elwood Lee, form-alin	Slight
12	4-27-05	Female	Double Salpingo-Oöphorectomy	Hastings, Mich.	Elwood Lee, chrom.	Slight oozing of serum
13	5- 3-05	Female	Ventro Suspension (Mod. Gilliam)	St. Mary's	J. & J., plain and chrom.	Slight
14	5- 3-05	Female	Colo-colostomy	U. B. A.	Elwood Lee, form.	Slight
15	5- 9-05	Female	Double Salpingo-Oöphorectomy	Butterworth	Van Horn, chrom. wormgut subcutic.	Absent
16	5-10-05	Female	Removal of broad lig. - Sarco. Cyst.	Butterworth	Van Horn, chrom. wormgut subcutic.	Absent
17	5-15-05	Female	Ventro Suspension (Mod. Gilliam)	U. B. A.	Elwood Lee, chrom. and plain worm-gut subcutic.	Slight
18	5-16-05	Female	Appendectomy	U. B. A.	Elwood Lee, chrom. and plain worm-gut subcutic.	Absent
19	5-31-05	Female	Double Salpingo-Oöphorectomy	Charlotte San.	Elwood Lee, form.	Absent

TOTAL NUMBER OF CASES, 54
PERCENTAGES CONCERNING ASEPSIS AND INFECTION.

J. Elwood Lee..	22 cases=61	% of 1st series.	10 aseptic=45	%.....	12 inf't	55	%
Vau Horn.....	7 cases=19	% of 1st series.	5 aseptic=71	%.....	2 inf't	29	%
Red Cross	6 cases=17	% of 1st series.	2 aseptic=33½	%.....	4 inf't	66½	%
S. & S.....	1 case = 3	% of 1st series.			1 inf't	100	%
J. Elwood Lee.	8 cases=42	% of 2d series.	4 aseptic=50	%.....	4 inf't	50	%
Van Horn.....	7 cases=37	% of 2d series.	6 aseptic=86	%.....	1 inf't	14	%
Red Cross	2 cases=10½	% of 2d series.	1 aseptic=50	%.....	1 inf't	50	%
S. & S.....	2 cases=10½	% of 2d series.			2 inf't	100	%

As a result of the foregoing analysis one cannot but believe that there are marked differences in the asepticity of the various preparations of catgut furnished the surgeon by commercial houses.

While all varieties may at times show defective strands or even defective consignments (St. Mary's herniotomy) it is hardly necessary to add that the variety which is associated with the least evidence of infection is the one to select, although improvement, I grant, is quite possible after the consignment by any house of inferior gut; but we should remember in this connection that suppuration is not always the fault of the gut.

It is unquestionably true that really infected catgut may not cause suppuration by reason of the fact that leucocytosis and phagocytosis prove sufficient to destroy the bacteria. On the other hand, as stated above, catgut or any absorbable suture or ligature material undoubtedly, sterile may be found associated with sup-
puration through faulty technique.

In the placing of absorbable, etage sutures there are five points of value which tho' axiomatic are nevertheless, from carelessness or other reason, often overlooked. These are: 1. The exercise of great care to prevent the contamination of the gut on its way from package to patient. Personally, unless a nurse is exceptionally in my confidence, my assistant does the threading. In this way preliminary contact is reduced to two factors, assistant and surgeon.

2. The use of sterile, preferably rubber, gloves. The latter articles have evolved from the thin, smooth variety to the thin, pebbled type, and then to the rather coarse, heavy glove used by the most advanced surgeons to-day. Rubber gloves should suffer no punctures as the perspiration stimulated and retained by the impervious material must of necessity contain bacteria from the dermal glands not accessible previously to the scrubbing brush. Punctures should be immediately covered by cots (a supply of which [aseptic] should always be on hand) or fresh gloves put on. 3. The substitution of the running for the interrupted suture. By doing this we eliminate as much as possible the knot which certainly, in its more pronounced resistance to absorption and its tendency toward local irritation, favors suppuration. In this connection it may be stated that the question of the knot and the style of suture is not unimportant. A knot loosely tied or tied only twice is apt to fail us because of the untying made possible by strain and the softening effect of the body juices. My own plan is to tie a knot fairly tight and three times instead of two. Fancy or complicated sutures after the fashion of the figure eight, the mattress, the quilted and others should be avoided, generally speaking, in buried work, for as Moynihan says, "The simplest way a thing can be done in surgery is the best way." A plain over and over, running right-angled suture cannot, in general situations, be improved upon.

4. Tissues to be approximated should be merely brought together and not choked or jugulated, and this gentle approximation should be maintained until healing has occurred. Material for accomplishing this result should be firm, resistant to speedy absorption and inelastic, all three qualities being important in suture material. Some form of chromicized or formalin gut is generally best. Of course this applies more especially to the reunion of structures which are important and which also require some time for solid healing.

5. Reinforcement of the suture scheme by strips of adhesive plaster.

It is my practice to maintain exact approximation of the tegumentary edges by placing narrow strips of aseptic ZNo. plaster over the line of subcuticular suturing; then to dust wound with some antiseptic powder, preferably sulfodine, of which I cannot speak too highly; then to put a thick, narrow strip of gauze directly on wound held securely by two or more broad bands of rubber adhesive plaster. Finally, of course, more gauze and the binder. In this way the tension on the sutures is taken off and the strain incident to vomiting much neutralized.

It will be noticed that in my later cases there has been less pus than in the earlier ones. This is due no doubt to greater care in technique: but in my opinion two other factors share in the result.

The first of these is the variety of gut used. The formalin material put up wet in breakable glass tubes I believe to be irreproachable. Gut acted upon by formalin is not so irritating to the tissues as is chromicized gut because it is not so stiff or rigid. It also while resisting absorption resists for not too long a time.

The other factor is the substitution of a shotted, wormgut strand for the subcuticular catgut suture, thus avoiding the transportation of dermal germs to the deeper structures and at the same time furnishing them with pabulum in the rich, juicy suture employed.

The wormgut etage in toto properly placed will not develop suppuration; but this style of sustaining tissues is not a safe one. If put in with the right-angled stitch or even with a short "whipping" stitch it is withdrawn with difficulty, sometimes necessitating an incision to liberate it, while if put in with long oblique stitches in order to insure easy removal subsequently spaces or gaps are formed which, especially in presence of vomiting, invite post operative griefs better avoided for the sake of all concerned. These loose spaces in the aponeurosis conduce toward subsequent ventral hernia while that most insidious complication, properitoneal hernia, (where bowel and not omentum forms the protruding mass) threatens the case with lively danger where such ineffective suturing of the edges of the peritoneum has been done.

The fact that properitoneal hernia presents, as a rule, no mass at site of incision adds not a little to the danger associated with the occurrence. (St. Mary's case.)

It need scarcely be said that the through and through suture of wormgut, silk or silver, (or their etage use, for that matter) as noted elsewhere, in part, while usually unassociated with suppuration, is to-day quite passe except in cases demanding urgency in closure. Through and through sutures do not accurately coapt the tissue-planes and are followed by a larger percentage of post operative herniae than are those of the absorbable

etage nature, even when the latter are associated with moderate wound infection.

Suturing etage with catgut is not devoid of danger, the strands under great strain occasionally giving way and thus, in case recovery ensues, demanding the institution of procedures for the prevention or cure of the expected ventral hernia. (Tensile strength.)

The practical question involved in this discussion, viz.—The proper, and that, of course, includes aseptic, closure of incisions

or wounds which have divided more than one tissue-stratum is interesting and important. I may sum it up, as large as it is, in a single statement. Eternal vigilance in the selection of the suture material and in the proper placing of the same. Even this will not produce ideal results because some patients presenting the double non desideratum of lowered cellular resistance and bacterial colonization in the blood-tide will develop suppuration; but having done our duty criticism must fall short of us.

DIAGNOSIS AND TREATMENT OF EMPHYEMA OF THE CHEST.*

A. J. LAWBAUGH,
Calumet.

The term emphyema is used in this paper to designate a purulent exudate within the pleural cavity. Inasmuch as this condition consists of a collection of pus confined in a closed cavity under pressure and attended by symptoms due to the absorption of toxic material it is, so far as therapeutic considerations are concerned, practically a pleural abscess. It is, therefore, essentially a surgical disease. While purely serous or fibrino-serous forms of pleurisy may be treated by internal medication with or without simple thoracentesis purulent or fibrino-purulent pleuritis must receive more radical surgical attention.

Diagnosis.—The determination of the character of the exudate is the first and most important step in the treatment of pleuritis. No operative procedure should be undertaken until the exact nature of the fluid has been ascertained. Auscultation and percussion will demon-

strate the presence of fluid within the pleural cavity and the effects of pressure upon the heart and lungs, but these methods will not reveal the character of the fluid. The occurrence of fever and emaciation may lead to the suspicion of an intoxication arising from the absorption of septic products, but these symptoms in themselves are not conclusive. While in some cases the purulent nature of the fluid may be revealed by its spontaneous rupture and escape, this is an event to be deplored, and to be avoided by early diagnosis and proper treatment. It follows, therefore, that the character of the exudate can be determined and an exact surgical diagnosis made only by means of an exploratory puncture (paracentesis thoracis or thoracentesis). An exploratory puncture is attended by so little risk and pain that its employment as a diagnostic resource should never be neglected, as it not only demonstrates the presence of a purulent exudate but also the exact position of the pus-collection. Thoracentesis,

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therefore, should always be employed in the diagnosis of the exudate forms of pleuritis as it makes an uncertainty a positive fact. Further, thoracentesis may be used not only as a diagnostic, but also as a palliative or curative measure.

The statement is usually made that thoracentesis is a perfectly safe procedure if carefully done, but Dr. Russell Fowler of Brooklyn has reported one case with fatal termination. In this case the needle was carefully introduced, but before the piston of the syringe had been drawn up the patient gave a gasp and was dead. The heart was reported by the pathologist to be in a normal condition. In a second case observed by Dr. Fowler the patient immediately after the introduction of the needle began to cough up small quantities of blood and blood was withdrawn by the syringe. The patient at once collapsed, but under vigorous stimulation rallied. In my own practice I have myself practiced thoracentesis and have seen it used many times, and have never observed the slightest harmful result. The citation of the foregoing cases should not deter us from the employment of so valuable an aid in the diagnosis of this condition.

Method.—The best instrument for thoracentesis is the one known as the pocket aspirator, having a needle three inches long and of sufficient calibre to permit the passage of a thick fluid. The ordinary hypodermic syringe is too small because the lumen of the needle will not allow the passage of thick pus, and the needle is so short that it will often fail to reach the exudate, and is so slender that it may be broken off should the patient move suddenly or if much force be used to enter the cavity. The exploration should always be made under careful

aseptic or antiseptic precautions; the skin should be sterilized in the usual way and the needle should be boiled. Should the collection of purulent exudate be very small two or three punctures may have to be made before it is found. The use of an anesthetic is usually not necessary in thoracentesis; when desired a few drops of one-half per cent. solution of cocaine may be injected or the point of a puncture may be frozen by someone of the various freezing methods. When the needle is withdrawn the skin puncture may be dressed with either a collodion dressing or a strip of sterile adhesive plaster.

Not only are the location and character of the exudate shown by means of thoracentesis, but we are by its aid enabled to form some idea of the extent and severity of the process, and also to gain some data for the prognosis. A thin fluid containing slender threads of fibrin, with slight or no order points toward a pneumococcus infection, particularly if there has been a preceding pneumonia. In tuberculosis cases the fluid is thin and contains many whitish shreds of fibrin. The microscopical examination of the fluid may also aid in the diagnosis of the etiological agent and in prognosis. Cover-glass smears may be made and stained for bacteria. The pneumococcus cases are much more amenable to treatment and progress more rapidly toward recovery than do those caused by the streptococcus or the tubercle bacillus. The tuberculous cases are the most unfavorable.

Thoracentesis may prove curative in exceptional cases. In the case of pneumococcus infections, particularly in children, a thorough evacuation of the exudate may result in a cure. Several cases of typhoid empyema have been reported cured after a thorough withdrawal of the

fluid; but it should be remembered in this connection that several cases of this kind have also been reported as having recovered spontaneously, the pus having been absorbed. At present, therefore, thoracentesis must be regarded as a diagnostic and palliative measure rather than as a curative one.

As a palliative procedure, thoracentesis may be employed in cases in which the intrapleural tension is extreme. Such cases should be aspirated without delay. As a procedure preparatory to the use of more radical measures thoracentesis is also very highly spoken of by Professor N. Senn. Aspiration should always be performed in the case of septic and very weak patients. The amount of fluid withdrawn should depend upon the condition of the patient. It is not necessary to withdraw the entire amount of fluid at one sitting. Thoracentesis improves the desperate cases so much that with the addition of stimulation the condition of the patient may be so much bettered that a more radical operation may be undertaken with much less risk than would otherwise have been the case. Anaesthesia will be much better borne after the intrapleural tension has been lessened by thoracentesis. The latter operation should be performed some hours before the radical one.

In the average case of empyema more radical measures than simple thoracentesis will have to be carried out. To the surgeon there is offered the choice of several different methods for opening and draining the pleural cavity: thoracotomy or pleurotomy with or without resection of one or more ribs. Estlander's operation, Schede's thoracoplasty, Delorme's decortization, etc. The general principles involved in each one of these methods are essentially the same.

Preparation of the Patient.—The patient must be carefully prepared for the operation. Empyema cases are as a rule much debilitated by septic absorption; and all unnecessary shock and exposure must be carefully avoided. It is best to prepare the patient in bed, and to disinfect only that portion of the chest which lies in the field of operation. Care should be taken that the disinfecting fluids do not wet any part of the patient save the area of operation. In the case of very weak patients the whole body with the exception of the field of operation should be warmly covered. When possible the patient should lie on a hot water operative cushion. I strongly recommend the method of disinfecting the area of operation as suggested by Professor McBurney, thus doing away with scrubbing and the use of much disinfecting fluid.

Anaesthesia.—The question of anaesthesia should next be considered. The need of an anaesthetic and the choice of the most suitable one must be determined in each individual case according to the conditions. The condition of the patient and the operative procedure used are the most important points to be considered. As mentioned above thoracentesis rarely requires the use of an anaesthetic, and then only a local one. In the case of a pleurotomy with resection of one or more ribs general anaesthesia will be necessary. The condition of the heart-muscle must be carefully considered as well as that of the lungs. Chloroform has generally been preferred, although some authorities of note consider the use of ether as imperative. In a few cases of pleurotomy with resection of several ribs performed by Dr. G. R. Fowler, complete analgesia was obtained by spinal cocainization, but this method requires an experienced hand,

and we are as yet in ignorance as to what dangers may be encountered.

Dr. Da Costa states that local anaesthesia in pleurotomy is very satisfactory in the case of adults, but much less so in the case of children. Dr. S. S. Fowler relies entirely on local anaesthesia for simple pleurotomy in both adults and children. He states that children suffering from empyema are apathetic and while they make an outcry at the first cut of the knife they are too weak to offer active resistance. It is true that these weak patients should not be exposed to the least possible risk of shock, but I also deprecate the giving of any unnecessary pain, and prefer to act on the advice of Dr. Da Costa, using a little ether cautiously and performing first a simple pleurotomy and then a few days later making a resection to afford proper drainage.

Position of Patient.—The position of the patient is a very essential point. It will depend upon the operative procedure employed, but it is essential, however, that the patient rest as little as possible on the sound side as this embarrasses respiration. Further, the patient should not be left to support himself in the required position, but all parts of the body should be at rest and all muscular strain relieved. This may be accomplished by means of soft pillows or other supporting material. In the case of the simpler operations the patient may be laid flat on his back with his affected side extended somewhat beyond the edge of the table. The arms should be placed over the head. In the case of more extensive operations it may be necessary to turn the patient so that he rests upon his sound side, but even in these cases much can be done with the patient in the dorsal position and the side projecting over the edge of the

table. Should it become necessary to turn the patient on his side great care must be exercised, since the pressure of the fluid may suddenly embarrass the heart and cause death.

Incision.—It is not necessary to reach the very bottom of the cavity in making the incision for an empyema, for what is the bottom of the cavity on the day of operation is the next day pushed up by the action of the diaphragm.

Resection of Ribs.—Koenig of Germany and Dr. Stone of New Orleans many years ago persistently urged the necessity of the resection of one or more ribs as an essential part of every radical operation for empyema. Resection does not increase the immediate risk of the operation to any extent, and the advantages gained from it in securing free and permanent drainage more than outweigh any additional dangers incident to the operation. Professor Ingalls of Chicago is very much opposed to rib resection on the ground of danger of necrosis of the exposed rib ends. He uses a flat trocar and canula, and after puncturing the chest wall withdraws the trocar and introduces through the canula two rubber tubes for drainage, claiming that this method is very efficient.

In the absence of contra-indications the incision is made in the axillary line at a point corresponding to the lowest level of the empyema cavity. It is interesting to note that every intercostal space, from first to last, has at different times been recommended as the best point of attack in the operation for empyema. The best results may be expected when the pleurotomy is performed at the level of the sixth rib. Not less than two inches should be resected, so that opening sufficiently large to admit the finger may be made,

in case such a procedure becomes necessary. Various forms of incision are employed to expose the rib, curved, straight, etc., but in any case it should be ample. The rib having been exposed by the incision, the periosteal envelop with the tissues attached over it is then separated from the rib by means of an elevator, care being taken to lift out from its groove at lower border of the rib the intercostal artery with the tissue to be reflected. To accomplish this result satisfactorily the operator must hug the bone closely.

After the rib has been exposed the bone is lifted forward with an elevator and excised with a strong pair of bone-forceps. All that remains to be done after the rib resection is an incision with the scalpel in the centre of the periosteal trough large enough to admit the index finger. The evacuation of the pleural sac should always be done slowly; this can be accomplished most effectually by interrupting the flow of pus from time to time by plugging the pleural incision with the finger or by a pledget of gauze. Rapid evacuation should be avoided to prevent a too rapid vascularization of the affected lung and the pleural adhesions and granulations; otherwise a troublesome haemorrhage might be produced. After the pus has escaped from the cavity a finger may be introduced and some of the masses of exudate loosened and withdrawn. This manipulation should be carried out with the utmost delicacy. I have never employed this procedure myself, as it is not absolutely necessary and might be dangerous. The individual operator must decide this question for himself. It is probable that a lung which is attached by adhesions dense and firm enough to require tearing with the finger will ultimately require other measures to free it. I

have packed the cavity with gauze which on its removal brought away masses of exudate which would have taken some time to soften and drain away. The use of the finger is fraught with danger unless managed in the most gentle manner.

Irrigation.—The question as to whether the cavity should be washed out is also one that must be left to the judgment of the individual operator. I, myself, have never used and do not advise the irrigation of an empyema cavity. Sudden deaths have been reported as the result of irrigation and the procedure is absolutely unnecessary except in those cases in which the pus is very foul. Even in these cases it should be rarely carried out and then with the utmost delicacy of manipulation. Even with such precautions shock has resulted. Da Costa quotes Willens as maintaining that cases in which lavage is not used recover sooner than those in which it is. One author recommends the immersion of the patient in a salt bath, the solution being allowed to flow out and in while the patient is breathing, the opening of the wound being under the surface of the fluid.

Drainage.—It is assumed that the operation has emptied the pleural cavity as completely as possible of pus and masses of fibrinous exudate. In very recent cases occurring in children in which the lung completely expands at the time or soon after the operation the simple packing the wound with gauze may alone be sufficient. Such cases, are, however, extremely rare. In the great majority of cases it will be necessary to employ a rubber drainage tube or tubes. There are many ways of arranging this tube. It may be slender, fenestrated, curved on itself, etc.; the coils are held together by thick strands of catgut so that a mat is

formed which rests on the floor of the cavity, the proximal end of the tube emerging from the opening. On the other hand a short, thick-walled tube of a large calibre may be used, and this has my preference. Such a tube serves to preserve an opening in the chest and affords a way for the secretions to escape more readily. Various other ways of placing the tube are employed. Care must be taken that the tube does not press upon the lung or injury may be the result. The tube may be retained in place by means of a safety-pin through its walls but not through the lumen, close to the chest wall. A piece of tape is then passed through the pin and fastened around the chest. An efficient method which has been used by myself and my colleagues is the passing of one end of the tube through the centre of a square of rubber sheeting and stitching the end to the latter. Several layers of gauze are interposed between the rubber square and chest wall to prevent any excoriation. Abundant dressings should be used over and around the tube and fastened in place by a chest binder.

It has been advised that the tube should project for some distance outside of the chest wall and be attached to a longer tube whose distal end is submerged in a basin or bottle of a solution of mercuric chloride placed by the bedside. The respiratory movements of the affected lung or of its fellow will cause the solution to rise and fall in the tube, and this will aid the pus to flow down into the solution. The cavity will thus be kept drained and the chest wall and dressings clean. The thoracic wound will therefore close the more readily around the tube. This may be an ideal method, but I am satisfied that it would

be a difficult matter to carry out efficiently unless the constant care and attention of an attendant could be obtained, as the apparatus would be easily displaced by the movements of the patient. I have not employed this form of drainage, having been satisfied with the good results of the simpler method. The dressings, of course, must be changed as frequently as may be necessary to preserve cleanliness.

Position of the Patient After Operation.—Patients should not be allowed to sit up for several days after the operation; indeed they should resume the sitting posture by degrees. As a rule they are emaciated by long illness. Their respiratory and circulatory systems have experienced a severe shock, and a sudden change of position may be productive of severe and even fatal syncope. The patient should be encouraged to lie on the affected side as much as possible, and to assume such position as will provide most efficient drainage in order to prevent the stagnation of the secretions.

Significance of Fever.—A rise in temperature if occurring early, in the first forty-eight hours following the operation may be due to a supervening pneumonia or to the extension of a latent or subsiding pneumonia. Such complications would be revealed by the history of the case. In the case of a prior pulmonary tuberculosis an acute process may be engrafted on the chronic one. The most common cause of fever, however, is to be sought in the stagnation of the secretions. This is to be avoided according to the directions given above. In the case of pus too thick to flow through the tube it may be necessary to employ irrigation, or what is preferable to use a tube of larger calibre. An empyema should be kept as fresh and clean as we should keep an abscess occurring else-

where. A well-placed drain of suitable calibre and a favorable position of the patient will usually accomplish this. Should every other device fail then irrigation may be carefully employed, but I do not advise it, as I do not think it positively essential. In case several pus-sacs or cavities are present these should be converted into one cavity; but this occurs so rarely that need scarcely be mentioned. When drainage is properly provided for, and if no complications such as pneumonia occur, and if the case is not tuberculous the temperature will soon reach normal.

Shock.—Shock is to be looked for in all and combated by the usual methods. The amount of shock will depend upon the previous condition of the patient and the acuteness of the process, and also somewhat upon the rapidity with the cavity is emptied.

Haemorrhage.—Haemorrhage may occur from the non-ligation or the improper ligation of the intercostal artery, rarely from the cavity itself, unless extensive adhesions have been disturbed by manipulation or by the too rapid emptying of the cavity. In the first contingency the bleeding vessel must be sought for and ligated. In the latter, if excessive, there must be a temporary packing and closure of the opening in the chest by securely strapping a compress over the opening.

Lung Gymnastics.—Some authorities recommend the use of the water bottle as an aid in the expansion of the lung, but I have found the full inspiration and expiration by the patient just as efficient. This gymnastic expansion must not be neglected, otherwise the adhesions may become firm and dense. The patient should be gotten out of bed and into the

open air as soon as able to be about with safety.

Duration of Healing.—In acute cases the lung expands readily and the cavity quickly closes. The younger the patient the quicker the recovery; and on the other hand the longer the duration of the empyema the greater will be the length of time for the closure of the cavity. In cases of long standing as well as tuberculous cases an extremely long after-course is to be expected. In these cases other means of obliterating the cavity must be considered.

Complications.—Secondary Scoliosis.—As a result of the approximation of the ribs of the affected side by reason of the failure of the muscular apparatus of that side to take part in the respiratory act the dorsal portion of the spine becomes scoliosed with the concavity of the deformity toward the affected side. Compensatory curves in the cervical and dorsal regions will follow sooner or later. These deformities will disappear to some extent in those cases in which the lung again expands

Fistula.—This complication is frequently met with in those cases in which diligent endeavors have been used to obtain efficient drainage, proper lung expansion, etc., also in tuberculous cases, and in those in which the empyema has existed for a long time with formation of many adhesions. As a rule the persistence of a fistula for two or three months after the operation demands investigation as to its cause. This may be necrosis of the ribs; or proper examination of the patient may reveal the existence of tuberculosis. In the treatment of persisting fistula several courses are open to us.

1st.—The Estlander operation consisting of a multiple resection of several or as

many ribs as may be necessary to cause the chest wall to sink in over the cavity where pus is still secreted.

2nd.—The Schede operation may be selected as an alternative when the Estlander has not produced or does not offer the desired result. Schede's thoracoplastic operation is a grave one, and should never be undertaken without clear and well-defined indications. It is attended by a degree of shock equivalent to that of a major operation. In well-selected cases it has yielded encouraging results. Fowler of Brooklyn practises resection of the pulmonary pleura in connection with the Schede operation, claiming that the resection is a very important part of the combined operation. These operative measures should not be resorted to until it is seen that the cavity will not close by Nature's aid alone. Such cavities tend to close spontaneously through the expansion of the lung on the diseased side, by the increased rise of the diaphragm on that side and by narrowing of the intercostal spaces through the gradual encroachment of the ribs. The latter may finally even overlap.

Delorm's method of "decortization" of the lung may be used in very chronic cases; this consists of the reflection of a flap of skin muscle and bone, and then the removal of both pleural surfaces either with the finger or scissors. This operation is still in the experimental stage, but a number of cures have been reported as the result of its employment. It is attended by the danger of severe haemorrhage.

Prognosis.—Not all cases can be cured even by extensive operation and in obstinate cases several operations may be necessary. Such cases offer unfavorable subjects for operation because of the long period of suppuration and the possible tuberculous infection. Premature removal of the drain is often followed by relapse. Drainage must not be suspended until careful examination has shown satisfactorily that the suppurating pleural cavity has been obliterated. It must be remembered that in this condition we have to deal with a suppurating cavity; and the same results of treatment apply here as in similar conditions in other parts of the body: viz., thorough and efficient drainage.

THE VALUE OF EARLY DIAGNOSIS IN ULCERATIONS OF THE ANO-RECTAL REGION.*

L. J. HIRSCHMAN,

Detroit.

Believing that many patients can be saved untold suffering and not a few saved from certain death by a better understanding of the value of early diagnosis of affections of the ano-rectal region, the author has endeavored to bring

out a few points of more or less importance and interest in regard to ulcerative conditions of this region.

A great many reflex symptoms which are manifest in remote parts of the body may be traced to ulcerations apparently simply located within the confines of the rectum, and many a man's life has been

*Read at the Annual Meeting of The Michigan State Medical Society, 1905, at Petoskey.

made miserable by the existence (unnoticed) of a small fissure in ano.

The author will not spend much time in the consideration of ulcerations which are situated outside of the sphincter, because these ulcerations are noticed first by the patient himself and their recognition is a very simple matter. Moreover, these ulcerations which are really extra-anal or perineal, are not as a rule accompanied by any other than the symptoms of local disturbance. The high up ulcerations situated in the rectum and the irritable, often intolerable ulcerations and fissures situated within the grasp of the sphincter are of more interest and vastly more importance; because of the length of time which frequently intervenes between their origin and their recognition by the practitioner.

The significance of blood in the stool is of the greatest importance. A great many patients notice a little blood in the stool, or perhaps notice a few drops on the toilet paper after a passage, and think very little of it because there are no other symptoms. They may casually mention the fact that they are suffering from an attack of "piles," that they have noticed a few drops of blood on the toilet paper; they may perhaps go to the corner drug store and get one of the many vaunted pile cures, and then after six months or a year, or longer, find that they are still losing blood and that these "sure cures" have not relieved them.

A most distressing picture is presented not infrequently when the rectum of one of these patients is examined for the first time and strictural ulceration, tuberculosis of the rectum or a malignant growth well advanced, is discovered.

The appearance of blood of a fresh bright red type is always indicative of

ulceration of some portion of the ano-rectal-sigmoidal canal. Ulcerations higher up give rise to hemorrhage which is of a dark brownish, coffee-ground or tarry appearance. The blood from ulcerations higher up is mixed with the stool and is a component part of the stool, or even composes the stool, but hemorrhage from the lower portion of the bowel, namely the sigmoidal colon, the rectum and the anus, is free, either precedes, accompanies or follows the fecal mass. Its bright red may or may not be clotted; it may be considerable, it may be a mere streak in the stool, or it may consist of a few drops after a defecation is completed and is noticed first by the patient upon the toilet paper.

The history of rectal hemorrhage, however slight, should call for an immediate thorough examination of the whole rectal cavity. Ocular examination first of the anus, then proctoscopic examination of the rectum and sigmoid with the rectum well dilated and with the proper light should follow. The following cases will illustrate the importance of early examination in cases which give practically no other history than that of hemorrhage:

Miss M. H., age 38, Detroit, was referred to the writer by Dr. Breisacher April 4, 1905. Patient states that she was in perfect health until two or three months previously, when she noticed that her passages became more difficult, that she could not pass them except in a half standing position and that the stools were accompanied by blood. Stomach became irritable and food was not digested properly. The physician whom she consulted gave her various prescriptions for "stomach trouble," but she grew no better quite fast. Thinking that she had stomach trouble she consulted a gastro-enterolo-

gist, who, upon inquiry, soon elicited the fact that she must be suffering from some form of rectal ulceration, and the case was referred to the writer.

Examination showed a very tight sphincter fissured in its posterior portion with a sentinel pile guarding the fissure. Proctoscopic examination showed a strictural ulcer three inches from the external sphincter which was so tight that even under anesthesia the tip of the forefinger could not be admitted. The stricture was surrounded by a dense infiltrated mass and bled very freely upon touch. On April 5, an inguinal cholestomy was done and the bowel moved through a new opening until April 25, when the whole mass was removed by the perineal route. The rectum with the stricture intact was removed and sent to the Detroit Clinical Laboratory for examination. Report showed it to be a carcinoma. When the rectum was removed the healthy portion above the growth, or the lower portion of the sigmoid, was brought down to the mucous membrane of the sphincter and united to it with chromicized cat-gut. A new rectum was thus formed. On May 9, the inguinal anus was closed under sterile water infiltration anesthesia and the patient was discharged May 30, having good movements through her new rectum and having gained 23 pounds in weight; digestion and defecation seemingly as good as ever. This case illustrates how far a malignant growth in the rectum can proceed without any pain and with hemorrhage as the principal symptom.

William D. D. marine engineer, age 34, was referred by his brother, a physician in a neighboring town, on April 14, 1905. This man apparently was in perfect health and weighed 195 pounds. He presented

a history of perfect health up to one and one-half years previous to the time he consulted me, when he noticed after his passages a pulsating pain and a sense of fullness and heat in the rectum. After he commenced to notice blood streaks on the stool, had inclination to go to stool about every two hours. Noticed stools were tape like or ribbon shaped. Said that he could move his bowels more comfortably when in a half standing position. Sometimes hemorrhage quite profuse, but no pain and no other symptoms.

His examination showed buttocks reddened and a folliculitis around the hair roots. Proctoscopic examination showed a tubular ulcer three inches from the anus. This ulcer had contracted, so that the stricture which resulted would not admit the fore-finger.

On April 20th patient was operated at Harper Hospital. The lower three inches of the rectum was amputated through the perineal route, and the patient made an uninterrupted recovery and was discharged from the hospital at the end of five weeks. He now has good movements every day without cathartic assistance. There remained a little irritable spot at the mucocutaneous juncture, which responded readily, however, to local treatment, and he is back at his work, has regained his weight and is perfectly healthy at the present time. This man never consulted a physician until a few days before he was examined by the author, and then he casually mentioned the fact to his brother, who is a physician, that he was passing blood from the stool. His brother insisted upon his coming to Detroit and being examined. He acknowledged that he had been using some of the various pile cures for over a year past. Examination of the

mass removed showed that it was a non-malignant inflammatory stricture. Both of the above named cases if seen early would have yielded to local treatment readily without the major operation necessitated by the condition when seen by the writer.

Another very important symptom which would lead me to examine for ulcer in the rectum is a persistent recurrence of diarrhoea, particularly morning diarrhoea. The patient who, shortly after arising in the morning, has two or three or four soft movements, accompanied by blood or not, perhaps several inclinations to go to stool, with or without result, later in the day, but is not disturbed at night; should have the rectum thoroughly explored. Very often a high up ulcer from two to four inches from the anus will be found, and the cure of this will bring about a relief of the troublesome diarrhoea.

Mrs. E. McB., school teacher, age 32, referred by Dr. Wright, of Detroit. History of tenesmus and diarrhoea, particularly morning diarrhoea dating from pregnancy of seven years ago. Diarrhoea only occasionally accompanied by blood. Examined on Oct. 30, 1904, when two ulcers about one-third to three-quarters of an inch respectively in diameter were discovered two and one-half inches from the external sphincter. Also five large internal hemorrhoids encircling the anus just inside the internal sphincter. The ulcers were curetted, cleansed and cauterized and the hemorrhoids excised. Patient made an uninterrupted recovery and when examined December 6, 1904, presented a practically normal rectum. She has gained eighteen pounds, diarrhoea is entirely relieved, is able to resume her occupation and has had no recurrence.

Oftentimes ulcerations cause reflex con-

ditions of other organs, such as irritable bladder, sciatica, itching of the genitals and ani, headache, digestive disturbances and even disturbance of vision. The following cases illustrate reflexes referable to the rectum:

Mrs. T., Detroit, age 35, wife of a Detroit physician, complained of sharp shooting pains in the pelvis, somewhat like—yet different from the crampy pains of dysmenorrhoea, a feeling of weight and heaviness in the rectum and sacral aching: some shooting pains down the inside of both limbs.

Examination of the pelvic organs showed no abnormality or mal-position. Rectal examination disclosed a small triangular ulcer of about three and one-quarter area situated on the posterior wall of the rectum. This subsided in ten days under local treatment, and though it is over a year since the patient was discharged, she had no recurrence of any of the above named symptoms.

W. H. E., hotel keeper, age 46, Oscoda, Mich., was brought to the writer suffering from the following pains and symptoms: Insomnia, indigestion, difficult defecation, pain after urination referable to the end of the penis and a burning of the neck of the bladder. Stone was suspected by his family physician but a diligent search of the bladder showed the absence of any stone. Prostate was examined and found normal, but two internal hemorrhoids were discovered with a deep fissure dividing them. These were incised after the rectum had been thoroughly divulsed and the patient left the hospital at the end of two weeks entirely recovered. A letter received from him six months later stated that he had entirely regained his former health, had gained 30 pounds in weight, slept well nights and felt, as he expressed it, "a new man and ten years younger."

The author could report scores of such

cases if time and space would permit, but believes that a case or two of each class is sufficient to illustrate the value and importance of early examination of the rectum. The author has treated cases which have been examined by the family physician but whose examination consisted simply in the insertion of the index finger into the rectum and a glance at the perineum. Rectal ulcerations can rarely be felt by the finger; they must be seen through the protoscope. If one would aim to achieve success in a great many baffling reflex conditions, and if he would make a routine practice of examining the

rectum of any patient for whose symptoms he can find no other cause; in a not small percentage of the cases will he find these symptoms are due to ulceration either high up in the rectum or within the grasp of the sphincters, and a great many conditions thus found can be relieved, not as was formerly done, by the administration of a general anesthesia but by the use of local anesthesia, either a mild eucain solution or, better still, what the author is using for practically all of his uncomplicated rectal cases, the production of artificial anaemia by the infiltration into the tissues of sterile water.

The Contagiousness of Erysipelas.—The idea that erysipelas is a virulent type of contagious disease has taken such a firm hold on both the lay and professional mind, that even the apparently complete refutations based on advanced bacteriological investigations, have thus far failed to overcome it entirely. The fear of contact with the afflicted one makes the later an object to be zealously avoided, and if he happens to be an inmate of a hospital ward, immediate and complete isolation is his fate. And yet there may be others present infected with much more virulent types of organisms, who are not considered for a moment any source of danger to the other patients. It is proper to ask why erysipelas is so sharply differentiated from inflammatory processes depending on bacterial infection of a similar kind.

A defect in the epithelial covering of the skin or mucous membrane is quite generally admitted to furnish an entrance for the pathogenic organism which produces erysipelas, and this in itself marks the disease as a wound infection. It also furnishes a sharp contrast to the picture afforded by the course of a typical contagious disease which is disseminated through the air or by an intermediary. Erysipelas has ceased to be the *bete noir* of hospital surgery, but how much of this favorable result is to be ascribed to our more complete knowledge of wound infection and wound treatment, how much to the better training and control of the ward attendants, need not be discussed here. There is no doubt of the fact, however, that reports of erysipelas epidemics have about disappeared from our literature.

A great deal of the mystery surrounding this disease has been cleared up by the observations of recent investigators. These results should be more generally known, in order that patients thus afflicted may be freed from the opprobrium so often attached to them, and which is only satisfied by their complete and to them certainly most annoying, isolation. There is no reason to question the facts obtained by these writers, because they are based on careful bacteriological investigations. The

most recent is by Franke of Prof. König's clinic (*Deutsche Zeitschrift für Chirurgie*, Vol. 78, No. 1), who has succeeded in demonstrating that the streptococcus gains entrance through minute and often unnoticed wounds in the skin or mucous membranes, and then continues its growth in the lymphatic channels of the cutis. Erysipelas may, therefore, be defined as a lymphangiomatous disease, and in no instance was it found that the germs returned to the surface of the skin, and were present in either the scales or the bullae. Whether the streptococcus produces an erysipelas or a cellulitis possibly depends on the size of the wound and the depth, to which the organism may have penetrated, and finally, on the virulence of the particular strain. It seems evident, therefore, that the patient is not a source of danger to his surroundings, so long as the surface of his skin remains intact. When he indulges in scratching, however, in order to relieve the intense itching, the corium is likely to be lacerated, and the exuding fluid has been proved to contain the streptococci. In this manner the infectious material may unconsciously be distributed and so, in order to avoid further dissemination of the disease, it is essential that the dispersion of the germs be limited by the application of proper occlusive dressings; when this is properly done the patient need not, as a rule be isolated. The exception deals only with cases in which sufficient dressings for the purpose are impracticable, as in facial, perineal, and some other locations of erysipelas. Here it will be more convenient to isolate the patient until the inflammatory stage has disappeared, but the isolation need not be prolonged beyond this period, as the desquamative stage has been shown to be without danger.

When, then, the diagnosis of erysipelas has been made, Franke contends, one need no longer continue to regard the patient in abject terror. The disease should be viewed in the same light as any other condition depending on wound infection, and treated accordingly. (Editorial *Medical Record*, September 30, 1905.)

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Editorial.

DR. BIDDLE TO RETIRE AS SECRETARY-EDITOR.

I sincerely regret that, owing to the pressure of other professional work and of private interests, I have been compelled formally to notify the Council that it will be impossible for me to accept another appointment as Secretary of the State Medical Society (who by virtue of his office is Editor of the Journal), after the expiration of my present term next January. As the Managing Editor and Collaborators are the appointees of the Editor, they will retire with him in order that the incoming Editor may have the privilege of appointing his own assistants. The Secretary-Editor is appointed by the Council at its meeting in January to hold office for one year and is reappointed yearly at the pleasure of the Council.

I desire to take this opportunity to express my thanks and appreciation to the Council, to the Managing Editor and to the Collaborators for their earnest and liberal assistance. Owing to the large amount of detail in connection with the work the State and County Medical Societies, which I personally supervised, my appreciation is extended particularly to the Chairman of the Council, Dr. Leartus Connor, and to the Managing Editor, Dr. Guy L. Connor, upon whom the burden of

the work of the Journal has fallen, for their untiring efforts in its behalf and their many acts of kindness.

To the members of the profession I would express also my appreciation for their leniency with the many necessary shortcomings in the up-building of a Journal in an untried field. My reward has been the pleasure of the acquaintance and personal association with the members of the profession throughout the State, which during the five and a half years of my incumbency of the office has been large and a privilege few enjoy.

I bespeak for my successor the kindly treatment the profession has accorded me. It has been a pleasure to have been one of the active workers during a historical period not only of the profession of this State but of the medical profession of the Union.

A. P. BIDDLE.

OUR DUTY TOWARD PATIENTS IN THE MATTER OF ANESTHESIA.

Each reported death, occurring during the process of the administration of a general anesthetic to a patient, must make the thinking medical man ask himself the question, "Could that death have been avoided?" The answer to the question is not always easy when only a specific case is considered. Far better, let us ask ourselves, "Do we always protect our patients against the possibility of such an occurrence as conscientiously as we ought?"

Assuming that no patient is ever anesthetized without some reasonable cause; assuming that the drug employed is pure and that it is administered by one competent to do it; and eliminating those cases to whom because of their dis-

eased condition the administration of an anesthetic is rightly considered precarious but to whom it must be given to permit necessary surgical attention, it is a fact that each year there occur several hundred deaths which can be attributed directly to the employment of general anesthesia. Many of those deaths in the past could have been avoided and many that will probably occur in the future can be avoided.

It is not for the death of the patient in a late stage of sepsis or malignant disease, whom we are trying to save, that we need censure ourselves; nor is it for the death of the patient whose physical organism, even with the aid of all our skill and conscientious care, is unable to gain mastery over a particular pathological process involving it; but it is for the fatalities that happen in the course of such a simple surgical procedure as circumcision, finger amputation, removal of hemorrhoids, incision of an imperforate hymen or any one of dozens of others as little complicated that we deserve blame.

It makes little difference whether we have permitted the use of chloroform in this case or ether in that; it makes little difference whether statistics show that one death occurs in each two or three thousand cases of chloroform narcosis and one in each eight or ten thousand of ether narcosis or not. If during general anesthesia one death or one hundred deaths occur which cannot be attributed to some cause other than the anesthetic employed, then general anesthesia must be held accountable for that one or those one hundred deaths. As for every death occurring during a surgical operation, which could have been done under anesthesia not general but local, we must hold ourselves to account. We have no right

ever to permit a patient to take the chance of being that "one in three thousand or one in ten thousand," unless it is absolutely necessary; we have no right ever to assure a patient who must take a general anesthetic that there is no danger, and alas! as often as not the danger manifests itself most unexpectedly. How common an occurrence it is that the patient whose chest, on careful physical examination reveals no abnormality, is the very one who succumbs to paralysis of the respiratory center or to cardiac failure and does not respond to the most prompt and thorough efforts at resuscitation; and how often it is that that patient was "only going to have an operation for ingrowing toe-nail or fistula-in-ano." It is perhaps only fair to assume that those cases, in which the operation was a comparative triviality, are the ones that receive undue prominence; yet they happen with alarming frequency.

With reference to general anesthesia then, there is safety only in believing that there is ALWAYS danger in its employment; so much danger, in fact, that its aid should be enlisted only when a patient cannot by other means be safeguarded against unbearable pain.

The medical profession at large seems to fail totally in appreciating the comfort to itself and the value to the patient of local anesthesia, specifically to that form known as infiltration anesthesia. To topical anesthesia, as first employed by means of injected cocain solutions, there were many well founded objections; the drug had to be used in such quantities that one always had to fear a possible systematic toxic effect. This is, of course, much more true of cocain solution when injected and therefore under tension than when it is applied to a free absorbing

surface. Anesthesia induced by infiltration, however, is based upon an entirely different principle. It is not the chemical effect of any of the materials in the solution upon the sensory nerve endings that obtunds sensation; it is simply a pressure paralysis brought about by the tremendous edema of the tissues, edema artificially produced by injection INTO the tissue to be anesthetized. This is not a proper place to speak in detail of the composition of the solutions made known by Schleich, the pioneer of infiltration anesthesia; it may be said, however, that the proportions of cocain, morphine and salt in distilled water were made so simply to make the solution non-irritating to the tissues and to prolong, to some extent, the anesthesia produced. They are used in such small quantities that toxic effects are impossible, even though very large quantities of the solution are employed. They in no way affect the intensity of the anesthesia; this is wholly and entirely dependent upon the establishment of sufficient edema of all the tissues that are to be wounded in the course of operation.

The infiltration method is employed by too few men and too infrequently by those who use it at all. Its range of usefulness is wide, very wide indeed, if one becomes as proficient in its employment as Schleich himself, who does ninety per cent. of his operative work with it. Even those less skillful or rather less experienced find that each week subtracts one operation from the general anesthesia class and adds it to the infiltration department. The comfort it gives to a patient, who always fears chloroform or ether more than he does the operation, to be told that he does not require general anesthesia and the great relief it is to the conscientious

surgeon, who simply can't help watching his anesthetic, to be able to pay attention only to the work in hand, invite the more general employment of this form of anesthesia; but a much more important factor than these considerations, the safety of the patient, DEMANDS that infiltration anesthesia be employed in every case where it is possible to employ it.

WM. A. SPITZLEY.

THE FIFTH PRACTICAL YEAR.

The idea of an obligatory fifth practical year in a hospital before receiving the license to practice medicine is not a new one. The advantages of a fifth practical year are obvious. A graduate of one of our most esteemed medical schools told the writer that he was painfully handicapped when he entered practice by the lack of bedside experience. We all know how different medicine looks from the benches of the amphitheatre and from the bedside of the patient when responsibility is added to the burden. We are gratefully conscious of the many advantages which we enjoyed as externes and as internes.

It has appeared to the writer that the training as an interne enables a young man to discriminate more quickly between the more essential and the less important symptoms. This education allows the mind to reach conclusions subconsciously so to speak. The so-called intuition is explained in this manner. The conclusions must, of course, be tested and verified by exact methods. An interne in the hospital enjoys advantages which are sometimes superior to those of a visiting physician or surgeon. He sees a number of patients suffering from identical or similar diseases and has an opportunity to compare the methods of diag-

nosis and treatment of the various chiefs. The partial responsibility attached to the internship is an excellent preparation for the future. The condition of partial responsibility which is a logical link in medical education is a necessary part in the evolution of a physician. It can also be applied to outdoor practice. The writer remembers, thankfully, the advantages which he shared with others at the University of Heidelberg. The whole city was divided into districts and each student was obliged to treat for a certain term the poor of the district in their homes under the supervision of an assistant of the polyclinic which was under the charge of Professor Vierordt. Our prescriptions were as a rule filled in the university pharmacy, except in emergency cases. We were obliged to use special blanks so that the druggists knew that a certain control was necessary. Once a week a thorough critical review was held by Professor Vierordt who inquired about the reasons for diagnosis and treatment in a given case, about the prognosis and any other feature, also about the results of examination in the laboratory. Possible mistakes in prescription writing were also criticised. Especially difficult and serious cases were seen by the professor himself at their homes. The unanimous approval of the idea of a fifth practical year by all with whom the writer had the opportunity to speak and the feasibility of its introduction may soon make the same a reality also in our country, and thus mark another step in the advancement of medicine in the United States which has made such splendid strides within a few years.

EMIL AMBERG.

County Society News.

BENZIE COUNTY MEDICAL SOCIETY.

The officers elected for the ensuing year are:
Dr. G. O. Edmunds of Honor, President.

Dr. E. J. C. Ellis, of Benzonia, Secretary.

Dr. John Powers of Benzonia, Treasurer.

Hereafter the Benzie County Medical Society will meet quarterly, the first Wednesday in September, December, March and June.

The next meeting will be held in Benzonia, Dec. 6, 1905.

E. J. C. Ellis, Sec.

SUCCESSFUL OBSTETRICAL PRACTICE IN FILTHY HOMES.

Read by Dr. G. O. Edmunds, before the Benzie County Medical Society.

In these days of great advancement in the methods of surgical and obstetrical asepsis there are few practitioners of midwifery located in the smaller towns but realize the difference in their obstetric technique from that laid down in the more modern works on obstetrics. I dare say that if the author of any of the books on this subject were called to deliver some women that I have attended he would very promptly beat a retreat.

The object of this paper is to draw attention to the possibility of doing really good clean work under the most trying circumstances and in the most unclean surroundings; and to do this without any extraordinary or degrading labor.

The position of affairs is this. A reasonably busy country practitioner is summoned to attend a woman in labor. The pay is to be ten dollars "when you get it." On arriving you enter a cabin perhaps fourteen by twenty feet. A scene of dirt and untidiness is presented. There is no other than cistern water, no wash bowl other than a most suspicious looking tin bowl of about two quarts capacity and no towels other than the dirty rag hanging on a nail. The patient need not be described for what does she know of germs and their awful relationship to puerperal fever, mastitis, etc. The bed is perhaps already made up. You proceed to examine and find over the mattress the old oil cloth table cover, then an old and filthy comforter, then sheets which you find on enquiry are "clean" and covering all another comforter. For an absorbent pad you may find a piece of old rag carpet. Such is a brief description of the not unusual sur-

roundings of obstetrical cases occurring in country practice.

Normal afebrile convalescence is quite practicable and almost invariable with such unpromising surroundings if the practitioner will do his best under the circumstances to keep whatever comes in contact with the genitals clean. Therefore a brief description of my methods of work may perhaps prove useful, and be the means of bringing out many more valuable points in discussion.

Besides the usual instruments and accessories described in all text books the following are placed in my obstetrical outfit:

1 pound of absorbent cotton.

3 ounces of Etherial antiseptic soap.

A five cent hand brush.

A fountain syringe.

A large size rubber obstetrical pad and several towels.

Where time will permit the bed is remade to shake out crumbs, vermin and detritus of various kinds. If practicable some cleaner sheets are obtained and the upper sheet is pinned up over the upper comforter at the head, one side and foot of the bed. This gives a ready access to the parts without getting the examining hand mixed up with the bed clothing. The rubber obstetrical pad is then placed in position and the bed closed until the patient is undressed and ready to go to bed for the final stages of labor. Any examinations before this time are made on the outside of the bed with an extra cover. Having had the wash bowl cleaned up a little, the freshest water obtainable and the hottest that can be borne is used for washing. The nails being cleansed, a quantity of etherial antiseptic soap is poured on the hands and arms and thoroughly rubbed in. A good scrubbing and washing is then done and repeated at least once. The woman is instructed to wash the abdomen, the thighs and genitals and to lie down on the outside of the bed for examination and to cover herself. From this time on two distinct hands are kept in mind,—the left to handle the bed clothing and other probably germ laden objects,—the right to make the necessary examinations and manipulations. Having anointed the first two fingers of the right hand with the etherial antiseptic soap, the left hand is passed beneath the cover and raising the clothes an unobstructed passage for the right hand is made. With the index and middle fingers in the palm of the hand the right hand is passed to the genitals and

the examination made. This examination should be thorough and subsequent examinations as infrequent as possible. When it is time for the woman to take to her bed a quantity of absorbent cotton is placed on the pad and the undershirt and night dress being held above the waist she lies down on the absorbent cotton. It is usually preferable to have the woman wear a pair of clean stockings. As labor progresses, free use of the cotton is made to keep the pad dry and the field of work clean. When the second stage is well under way some one else is requested to handle the bed clothing and assist with probably infected things while both hands having been cleansed are ready for the final manipulations. All instruments used are boiled in soda water. If a perineal laceration occurs it is immediately repaired with frequent irrigation of the torn surfaces, with a 1% solution of carbolic acid. When any obstetric difficulties are encountered the woman is usually placed across the bed and all clothing drawn back out of the way.

Douches are entirely avoided until the third or fourth day unless there is evidence of infection. Douches should never be given the first day or two except by the accoucheur himself. A castor oil purge is routine practice on the morning of the third day.

Absorbent cotton is applied as a napkin for as long as the pound will last and by this time the danger of infection is greatly reduced, and there has been time to prepare clean napkins and clean sheets. The mother's nipples are washed after each nursing with a 3% solution of boric acid, and the baby's eyes and mouth with a similar solution twice daily. The cord is dressed with boric acid and gauze and the "nurse" instructed to keep it dry and not grease it. Rarely is a binder used and if used the napkin is never allowed to be pinned to it. The napkin is simply placed against the genitals.

While there is abundant opportunity to criticize the above outlined methods it should be remembered that time will not permit of a thorough disinfection, even if the obstetrician is inclined to do such a job and that the fee is only \$10.00 "when you get it."

DICKINSON-IRON COUNTY.

At the July meeting, Dr. B. W. Jones, President of the Dickinson-Iron County Medical Society, sent the following paper, reporting a case of tetanus:

A CASE OF TETANUS.

B. W. JONES,
Vulcan.

H. W., female, single, age 19, Swedish, large, strong, healthy girl, on May 1, stepped on a sharp nail making a deep punctured wound on sole of right foot. The wound was treated antiseptically for one week, when it was apparently healed.

On May 12, she felt a slight stiffness of the muscles of the jaw and neck.

May 15—3 days after onset of first symptoms, I saw her, for the first time.

I found her with marked rigidity of the jaws, right foot, leg and thigh, and painful spasms of the muscles of the leg and thigh occurring every 3 or 4 minutes, temperature and pulse normal. The sole of right foot showed a small punctured wound, apparently healed, and without pain or tenderness on pressure. I called in Drs. Swift and Schwartz in consultation, who immediately confirmed the diagnosis of tetanus. The use of antitetanine was begun at once, and continued for 5 days, during which time she was given 220 cubic centimeters, without apparent benefit.

On May 18, the pain and spasms in leg having increased and she having had 2 very severe attacks of dyspnoea with convulsions, caused by spasms of the muscles of the chest and back, with opisthotonos, I decided to open and examine the wound in the foot. This was done under chloroform. In probing the wound with a grooved director I got a small quantity of granular, slightly pussy looking material which was causing no pain or soreness, but which was evidently being absorbed. I immediately proceeded to make thorough drainage, using a gauze drain, saturated with per oxide of hydrogen. May 19, began giving deep hypodermic injections of a 2% solution of carbolic acid, as recommended in Senn's Principles of Surgery. The injections were given deeply over the course of the sciatic nerve, giving about 3 grains of pure carbolic acid daily in 2 doses, morning and evening.

The injections caused no pain or inconvenience of any kind. Improvement now began to be perceptible and the injections were continued daily until June 8, at which time drainage was also discontinued and the wound was simply irrigated with per oxid daily until healed. May 12, allowed patient to sit up for a short time, all pain and soreness having disappeared a week before and only a slight stiffness remaining in foot and jaw. Before be-

ginning the use of carbolic acid, she had 3 very severe convulsions with spasms of the muscles of the chest, which threatened immediate suffocation, and several lighter attacks, but none after the use of the acid. Obstinate constipation from rigidity of the abdominal muscles persisted from the time I first saw her on the 15th of May until the 30th of May, over two weeks, resisting large enemas and cathartics, the urine was normal Morphine was used hypodermatically to allay pain and produce rest until the 28th of May when chloral was substituted with excellent effect.

Recapitulating important points we find that the period of incubation was 12 days. That the first symptoms of tetanus had made their appearance 3 days before medical aid was called. That the disease came on and progressed in spite of the fact that the wound was carefully and skillfully treated until it was apparently healed, the physicians treating it being fully aware of the importance and dangerous nature of such a wound. May 15, the first dose of antitetanine used and continued for 5 days until 220 C. C. were used, producing no apparent effect in lessening the severity of the disease, but on the contrary the symptoms becoming more severe. Opening and curretting of the wound, 18 days after the injury. The finding of a small quantity of granular pussy looking material, which undoubtedly contained the germs of tetanus. Drainage of the wound with gauze drain, saturated with per oxide of hydrogen. The use of carbolic acid injections given over the course of the principal nerve leading from the wound. Drainage being continued 22 days and several daily injections of carbolic acid, continued twice daily, for 19 days, the use of per oxide of hydrogen as a disinfectant and dressing because the tetanus bacillus being an obligate anaerobic germ, it will not develop in the presence of oxygen. The importance of opening and draining such a wound at any stage of the disease, on account of the fact as given by Loeb in his Special Medical Diagnosis: That no gross pathological changes occur in any of the internal organs the bacilli also being absent, he assumes that the bacilli remain at the point of invasion and from there the toxic products of metabolism invade the body.

LIVINGSTON COUNTY.

The Livingston County Medical Society held its annual meeting, September 12th, at the Whipple House, Howell.

The following officers were elected for the ensuing year:

Pres., A. W. Cooper, Fowlerville; Vice. Pres., W. H. Erwin, Oak Grove; Sec'y and Treas., R. H. Baird, Howell; Directors, J. M. Brigham, Howell; C. L. Sigler, Pinckney; R. N. Hodges, Brighton; G. E. McGregor, Fowlerville; C. E. Skinner, Howell.

Subject: "Differential Diagnosis of Appendicitis."

Meeting adjourned to Dec. 12, 1905.

R. H. BAIRD,
Secretary.

OAKLAND COUNTY.

The fourth annual meeting of the Oakland County Medical Society was held in Pontiac, September 12th. Reports of officers were received and Dr. W. J. McNeill, alternate delegate, gave an interesting account of the Petoskey meeting. The principal paper of the day was by Dr. Carlton D. Morris of Pontiac, on "Why and when should the pharyngeal tonsil be removed."

WHY AND WHEN SHOULD THE PHARYNGEAL TONSIL BE REMOVED.

C. D. MORRIS.
Pontiac.

The pharyngeal tonsil is a physiological structure, normally present in children, and should atrophy between the 12th and 20th year of life. If it exists in normal condition during these years, it causes little or no annoyance. But from its location it is easily understood how any little congestion may cause sufficient enlargement to completely block the nasal passages.

Free circulation of air through these passages, as well as the action of the muscles controlling the nasal orifices are factors of importance in controlling the size of the nasal cavity. If the respiration is impaired, there is an ill-formed superior maxillary arch, with marked inequality of the teeth. The continuous snuffing is accompanied by a drawing down of the facial muscles which retracts the upper jaw and alters the contour of the upper arch. The hard palate then instead of forming a perfect dome has its anterior portion tilted out and the portion at the base of the nose drawn in. The labio-nasal fold is lost, the nose is flat and broadened, the lips are thick and protruding and the chin recedes giving the child a peculiar stupid, idiotic or expression-

less appearance. The enlarged adenoid structure impinges on the openings at the eustachian tube, thus interfering with the proper ventilation of the tympanum. This leads to eustachian catarrh, and catarrhal conditions of the middle ear and, if infection occurs, it leads to chronic suppurative conditions, involvement of the tympanum and possibly bony necrosis. Earache and discharging ears are very common complaints in these cases. For the interference with the nasal respiration, the child is obliged to breathe through his mouth. The disuse of the nasal passages also favors their lack of development and when their bony framework becomes firmly united and fixed, the capacity for nasal breathing is more or less permanently fixed. It is then too late to alter their contour or to repair the damage done. The relief must come while the child is young and growing. He is indifferent though. The parents are careless or ignorant of the terrible consequences. It is through you as general practitioners that we must look and hope for relief. You see many more cases than do we as specialists and on you must rest the great responsibility of their dark future, if you neglect them.

There is only one method of procedure that will reflect credit on our profession. In this instance above all others radical methods are much safer than conservative ones. Inactivity is positively dangerous. Neglected cases become more and more deaf. The discharge increases and becomes very offensive, perforation of the drums occurs, the child becomes more and more peevish and fretful, pale and ill-nourished and more and more susceptible to diseases of an infective nature. But with operative interference all is changed. The child then becomes, bright, active, robust and ambitious. The facial expression changes. The nasal passages develop. The child ceases to snore at night. He sleeps soundly and awakes in the morning rested and ready for a hard day's play. The appetite improves. The digestion and assimilation are much more nearly perfect and the child's condition in general is entirely changed.

The parents and the little patients themselves will later be ever grateful to you for your timely help in this really very distressing and dangerous condition.

The following officers were elected for the coming year:

President, R. LeBaron.
Vice-President, C. J. Sutherland.
Sec-Treasurer, M. W. Gray.
Directors, E. A. Christian, N. B. Colvin, Wm. McCarroll.

Mason W. Gray, Secretary.

VAN BUREN COUNTY.

The Van Buren Co. Medical Society held its regular meeting at Bangor, Sept. 14th. Dr. C. L. Bennett read a paper on "The Use of Formic Acid in Rheumatism."

J. R. Giffen, Sec.

THE USE OF FORMIC ACID IN RHEUMATISM.

C. L. BENNETT.
Gobleville.

The subject I am about to present, namely, Formic acid in the treatment of rheumatism, is one I feel I should apologize for selecting, on account of my limited knowledge of it. However, in one of the June numbers of the Medical Record my attention was called to the experiments of Louis Bradfor Couch, of N. Y., on the treatment of rheumatic conditions with this drug, formic acid. This is all the literature I have been able to find on the subject, hence I will only give my own experience (on the subject), in the treatment of these conditions.

Soon after reading the article I was called to see a case of arthritis deformans.

It was a woman 50 years old, who had been a sufferer for 15 years, and for the last two years had been unable to walk and most of the time she could not move her legs without excruciating pain.

Examination showed the knees to be swollen and shiny with many extremely painful points on the slightest pressure.

The crackling crepitus so characteristic of this disease was very manifest and many of the finger joints were ankylosed.

At this time she also complained of severe pain in the left shoulder, in fact, it was for this that I was called to see her. This pain was very excruciating and she would cry out in agony on the slightest movement of her arm.

I regarded the case as a good one on which to try the formic acid and began accordingly.

The formic acid used must be C. P. and the strictest aseptic conditions observed in its use. A 2½-4% solution is the proper strength, better the former on account of the severe pain caused by its injection. The pain can be relieved greatly, though, by first using a 1% solution of cocain.

The part to be treated should first be cleansed with soap and sterile water, then

washed off with alcohol and rubbed dry with antiseptic cotton or sterile gauze.

On July 12, '05, I made 7 injections of 7/8 gts. each, in each knee, first of the cocain 1% and then the formic acid 2½%. The injections were made about 2 inches apart and just subcutaneous. Some of these caused considerable pain, but it lasted for only a moment.

The next day I called; the pain had left in her shoulders, but the knees felt very sore, in fact, she thought they were worse than on the previous day. however, I think, considerable of the soreness was from the injections, for several of the spots showed discoloration as if they had been bruised. Aside from this soreness, she said she felt very comfortable.

On July 15, I saw her again and made 8 injections in each knee, of the cocain and formic acid as I had done before.

I did not see her again until the 25th, but was informed in the mean time, that she felt very well and could sleep better than she had been able to for months before. She had no pain, except occasionally on moving the knees, they would "catch" as she would express it. The left knee showed the greatest improvement and she was able to straighten it out more than she had been able to before for two years, and she could run her sewing machine without experiencing any pain whatever.

She remained comfortable with practically no pain or discomfort, that was until Aug. 24, when I was called to see her again. The pain had returned in her shoulder, though not so bad as before, and her knees had been hurting her more for several days. I at once made eight injections in the shoulder and within two hours the pain had left her and has not returned since.

The next day I called again and made fifteen more injections in her knees. At this time I noticed that every time I withdrew the needle from the skin a drop of blood and sometimes a stream would follow, showing the capillary circulation had been very much increased, for on previous occasions and ordinarily no blood flows from the mere prick of a hypodermic needle. During the treatment I forbade the use of all liquid at the meal and for some time after, say one hour. She was also instructed to masticate her food very thoroughly and to eat nothing that contained pepper, mustard, pickles, sweets of any kind, drink coffee or any form of stimulants.

These last details with regard to diet, she

still observes and unless she continues to be careful in this line, her chances of recurrence of the pain is much more liable.

My second case was that of a man who was affected with what he called a stitch in his back. He had these attacks, usually about twice a year and was ordinarily laid up two weeks at a time.

He could not raise himself in bed or roll over without experiencing the most excruciating pain.

I at once made 17 injections in his lumbar muscles and in two hours he could raise up in bed without pain, and in 48 hours, except for his back feeling weak, he felt as well as ever and resumed his labor, whereas, before he was laid up about 2 weeks.

My third case was a man 40 years old, who had had rheumatism in his left shoulder about a week. He had tried all the home remedies he knew of, but the pain kept on, in fact, it had been getting worse all the time. I made 7 injections in his shoulder and in 24 hours he said the shoulder felt as well as ever, and he went back to his work.

To say formic acid is a specific in all kinds of rheumatic conditions is perhaps saying too much; however, I believe it to be a remedy well worth our careful trial as it will certainly allay the pain in these conditions more quickly than any thing I have used, except morphine, and I regard that as a very dangerous drug to use in any chronic disease.

My idea in selecting this subject was, not to demonstrate any very extensive knowledge of it, but in the hope that I might gain some knowledge from its discussion, also if there is any one present who is not using it, he will perhaps try it, that we may profit by his experience.

In conclusion allow me to suggest the following points which should always be borne in mind:

1. Cleanse the parts thoroughly before making your injection.
2. Use C. P. formic acid and never stronger than a 3%, or better 2½%.
3. Always inject a 1% solution of cocain before using the acid, waiting about 5 minutes between.
4. The injection should be subcutaneous and about ⅝ drops of each solution used at a time.
5. Inject the most painful points and place the injections at least 2 inches apart.

WAYNE COUNTY.

At the meeting of the Section of Internal Medicine of the Wayne County Medical Society on September 11th, two papers were read. The first paper was by Dr. W. J. Wilson, Jr., on "Modern Therapeutics and the New Pharmacopoeia." The second paper was on "The Classes of Prescriptions Physicians are writing." by Mr. Wm. A. Hall, ex-President of the Michigan Pharmaceutical Association. The latter paper excited much interest and discussion as it was based on the records of 7,500 prescriptions collected from 15 localities in the state. Mr. Hall separated the prescriptions into 5 classes, as follows:

- 1st. Proprietary remedies.
- 2nd. Ready made pills and tablets.
- 3rd. Single pharmaceutical remedies.
- 4th. Two or more simple pharmaceutical remedies.
- 5th. All others; i. e., those requiring more or less skill in compounding.

The percentages of each class of prescriptions he found to be, for Detroit and Grand Rapids: 1st class, 18.4 per cent.; 2nd, 9 per cent.; 3rd, 15.2 per cent.; 4th, 26.4 per cent.; 5th, 30.1 per cent.; while for the other cities and villages in the state the percentages were:

1st class, 13.2 per cent.; 2nd, 9.3 per cent.; 3rd, 20.7 per cent.; 4th, 29.3 per cent.; 5th, 12.1 per cent.

The papers were discussed not only by members of the society, but also by a number of pharmacists who had been invited to be present.

Correspondence.

SUPPRESSION OF MEDICAL NOTICES.

Editor:—I find that I failed to officially call your attention to a resolution which was unanimously adopted at the last meeting of the House of Delegates of the American Medical Association. The resolution referred to was introduced by Dr. E. Eliot Harris, of New York City, and is as follows:

"RESOLVED, That the committees on publication of the journals of medicine published by the state medical associations affiliated with this body be asked to assist the Board of Trustees in their efforts to suppress the advertise-

ment of the medical nostrums and to co-operate in the work of securing pure food and pure drug laws in the United States."

Respectfully yours,
GEORGE H. SIMMONS,

General Secretary,
American Medical Association.

Chicago, Oct. 11, '05.

THE AMERICAN NATIONAL RED CROSS

Neutrality : Humanity

WASHINGTON, D. C.

MICHIGAN BRANCH

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Detroit Oct. 9th, 1905.

A. P. Biddle, M. D.,

General Secretary, Mich. State Med. Soc.

Dear Sir:—I have much pleasure in acknowledging your favor of the 5th inst., in which you give me a copy of the resolution adopted by the Michigan State Medical Society endorsing the Michigan State Branch of the National Red Cross. I wish to assure you of my appreciation of this endorsement, and I hope that it will encourage the people to join in the good work.

We are just now endeavoring to obtain members to the Society, as I did not wish to make the effort while people were away from home for the summer. We hope to receive great encouragement.

Yours very truly,
Hugh McMillan.

THE MICHIGAN STATE SANATORIUM FOR TUBERCULOSIS

BOARD OF TRUSTEES

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Detroit, Nov. 1, 1905.

Secretary:—The project of the Medical Profession of this State to provide a Sanatorium for the dependent class suffering from incipient tuberculosis, has been furthered through Governor Warner by the appointment of a Board of Trustees. The committee of the State Med-

ical Society secured an appropriation of \$30,000.00 from the last legislature of which \$20,000.00 is available the first year for building and maintenance, and the remaining \$10,000.00 is intended only for the maintenance during the second year. The trustees are now ready to proceed with the founding of the institution, as far as the funds permit. The board is impressed with the importance of finding the best locality from a sanitary and a climatic point of view, and solicit your aid in the matter, more especially your opinion as to the suitability of the lands in your county for such purpose. The following conditions in the order named are regarded as necessary for a modern Sanatorium site:—

General accessibility by railroads and trolley line from the more thickly populated districts of the State.

Accessibility to fresh food supplies, preferably from surrounding farms, such as fresh eggs, milk, butter and vegetables.

Elevated regions and sandy porous soil with abundance of fresh water supply and facilities for good drainage.

Low degree of humidity and equable temperature with woodland to protect from prevailing winds. Slightly surrounding country such as hills, small lakes, and general scenic effects.

The site should consist from one to two hundred acres of land. As only incipient cases of tuberculosis will be treated and with the inmates under strict sanatorium discipline, this new institution cannot possibly prove a menace to the neighborhood in which it may be located; on the contrary, experience has proven that Sanatoria for tuberculosis are a distinct benefit to the country, not only commercially, but also in a hygienic way. The educational value on health of Sanatoria is most beneficial, for it is a matter of record that tuberculosis decreases in the immediate vicinity for the reason that citizens learn from such an institution in a practical way, how to prevent and cure the disease. For this reason and for the fact that the appropriation is very small, the trustees feel warranted to solicit the donation, of a suitable site from individuals, village or city corporations. We earnestly request the early co-operation of every member, in order that this humanitarian movement may be speedily and efficiently put into operation.

Very respectfully,
Henry J. Hartz,
President.

Book Notices.

The National Standard Dispensatory.—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopœias of the United States, Great Britain and Germany, with numerous references to other Foreign Pharmacopœias. In accordance with the United States Pharmacopœia, 8th decennial revision of 1905 by authorization of the Convention. By Hobart Amory Hare, B. Sc., M. D., Professor of Therapeutics in the Jefferson Medical College, Philadelphia, Member of the Committee of Revision of the U. S. P.; Charles Caspari, Jr., Ph. G., Phar. D., Professor of Pharmacy in the Maryland College of Pharmacy, Baltimore, Member of the Committee of Revision of the U. S. P.; and Henry H. Rusby, M. D., Professor of Botany and Materia Medica in the College of Pharmacy of the City of New York, Member of the Committee of Revision of the U. S. P. Imperial octavo, 1858 pages, 478 engravings. Cloth, \$7.25, net; leather, \$8.00, net. Thumb-Index, 50 cents extra. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

A superficial consideration might leave the impression that The National Standard Dispensatory coming as it does at the same time as the revised U. S. Pharmacopœia is superfluous. This would be a very erroneous conclusion. These two great works have very different functions and are not in competition. They have different positions in the new movement to improve and widen the scope and efficacy of rational therapeutics. It is only after a remedy has been tried and proven for a number of years and its uses more or less definitely known, that it can receive a place in the pharmacopœia. But there are many valuable remedies and some of the most valuable, that do not appear in the U. S. Pharmacopœia.

The National Standard Dispensatory contains every article in the new edition of the U. S. P. and, as well, other remedies of unquestioned value. For half a century the field of medical therapeutics has been obscured by the brilliant achievements of surgery. During this time not only have many worthless medicinal substances fallen into desuetude, but a rather overzealous iconoclasm has been rampant among agents of therapeutic value. But within the last two or three years there are signs of a thorough reaction. The medical profession—even the most doubting members of it—has been compelled to acknowledge the healing and life-saving efficacy of remedies found in nature. The profession has also awakened to the fact that it is in possession of but a very imperfect knowledge of many of the agents that have been in use for years. But above all there is a rising interest and confidence in the new therapeutic remedies. The methods of research to which these remedies owe their discovery are of such a nature that

they inspire the confidence of the most scientific and conservative members of the medical profession. Some of these new agents are valuable therapeutic acquisitions and yet they are not found in and do not belong to the U. S. Pharmacopœia. For example, there is probably no medicinal product that has aroused greater interest in the last three years than adrenalin. Not only does its wonderful therapeutic properties demand attention but its method of preparation as well. One will appreciate how indispensable the National Standard Dispensatory is if he desires to understand such a remedy as this. Then there are drugs which by their merits have a place in the Pharmacopœia of England, France, Germany and other countries and are not found in the U. S. Pharmacopœia. Many of these are described in The National Standard Dispensatory. In this work may be found a brief but sufficient account of the preparation and uses of such valuable agents from the British, German and French Pharmacopœia, as suppositories of carbolic acid, of tannic acid, of belladonna, of iodoform, of morphine, and of lead. In the U. S. P. there is but one official suppository, viz.: that of glycerine. I give this as an illustration of the important function of the National Standard Dispensatory.

The work is quite exhaustive in its description of methods of preparing drugs and will be of great service to the practical pharmacist. The contributions of Dr. Rusby to the department of Pharmacognosy has made this the most complete work on this subject in existence. Prof. Caspari deals with pharmacy, giving full information regarding methods and products with descriptions and explanations of the most approved apparatus and tests. Dr. Hare has given a direct and compact presentation of modern therapeutics. This section of the work will commend itself to the busy practitioner, but at the same time it is sufficiently scientific to interest the more studious members of the profession.

Lea's Series of Medical Epitomes.—Edited by Victor C. Pedersen, M. D.

Dayton's Epitome of the Practice of Medicine.—A Manual for Students and Practitioners. By Hughes Dayton, M. D., Principal to the Class in Medicine, New York Hospital, Out-Patient Department; Clinical Assistant in Medicine, Vanderbilt Clinic, College of Physicians and Surgeons, Columbia University. In one 12mo volume of 324 pages. Cloth, \$1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This little volume is published as a hasty reference for the busy practitioner who wishes

to recall some important points; and for the student it serves as a means of recalling and classifying his work, and points out to him the really important things in connection with etiology, symptomatology, diagnosis, prognosis and treatment. These points are dealt with in a clear and concise manner, but not so briefly as to be valueless.

The arrangement of Osler is followed throughout for the sake of convenience. The book is an attractive one and would be a valuable addition to the library of any busy man.

Practical Massage in Twenty Lessons.—By Hartvig Nissen, Instructor and Lecturer in Massage and Gymnastics at Harvard University Summer School; Director of Physical Training, Brookline Public Schools; Former Acting Director of Physical Training, Boston Public Schools; Former Instructor of Physical Training at Johns Hopkins University and Wellesley College; Former Director of the Swedish Health Institute, Washington, D. C., etc. Author of "Swedish Movement and Massage Treatment," "A, B, C of Swedish Educational Gymnastics," "Rational Home Gymnastics," etc. With 46 Original Illustrations. 168 pages. 12mo. Price, extra cloth, \$1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This is a compact book, taking up the subject of massage in a practical way, not a theoretical one. It is based upon the author's thirty years of experience as a practitioner and a teacher, and presents the subject as he has taught it in the Harvard University school.

The book is properly illustrated, showing the different positions and movements necessary to success and is well graded from the simple movement to the more complex.

In the latter part of the book the author gives practical instruction as to how to treat different condition by massage, giving in detail the gradation of treatment, and in such a way that no one should have any trouble in following.

The Era Key to the U. S. P.—A Complete List of the Drugs and Preparations of the United States Pharmacopœia. Eighth decennial revision (1905). Vest-pocket size; 83 pages; price 25 cents. The Pharmaceutical Era, Publishers, 90 William Street, New York.

The publishers announce a new edition of the well-known "Era Key to the U. S. P.," whose object is to further the introduction and employment of the official drugs and preparations of our National standard, the United States Pharmacopœia, the eighth revision of which is now in force. The book comes in vest-pocket size and gives in a "nut-shell" all the essential information required by the physician who desires to prescribe pharmacopœia remedies—their official names, synonyms and constituent parts, with average doses in both metric and English systems. The idea of

putting the essential information of the Pharmacopœia in so small a compass is claimed to be original with the publishers, under whose direction the little work was compiled. The busy physician will find it both helpful and suggestive in his effort to prescribe official pharmaceutical preparations.

Dr. Coakley's Laryngology.—New (3rd) Edition just ready. A Manual of Diseases of the nose, throat, naso-pharynx and trachea. By Dr. Cornelius G. Coakley, Clinical Professor of Laryngology in the University of Bellevue Hospital Medical College, New York. 118 engravings and 5 colored plates. Cloth, \$2.75, net.

It is one of the most complete and interesting books published. It will appeal to the student because of its conciseness and to the busy practitioner for its practical features. A special chapter has been devoted to therapeutics, wherein will be found a classification of drugs according to their local action. This feature alone will be greatly appreciated.

He not only describes tersely the symptoms and treatment of the more common diseases of the throat with great care, but he enables one to comprehend the uncommon diseases so characteristic of the different sinuses.

BOOKS RECEIVED.

INTERNATIONAL CLINICS. Vol. III. Fifteenth series. Edited by A. O. J. Kelley. J. B. Lippincott Co., Publishers, Philadelphia and London, 1905.

CLINICAL METHODS. Ninth edition. By Robert Hutchinson and Harry Rainy. W. T. Keener & Co., Publishers, Chicago, 1905.

HYGIENE AND PUBLIC HEALTH. New revised edition. By B. Arthur Whiteleggs and George Newman. W. T. Keenan & Co., Publishers, Chicago, 1905.

A MANUAL OF CHEMISTRY. Third edition. By Arthur P. Luff and Frederic James M. Page. W. T. Keener & Co., Publishers, Chicago, 1905.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK. Ninty-ninth Annual Session, Albany, 1905.

TRANSACTIONS OF THE IOWA STATE MEDICAL SOCIETY. Fifty-third Annual Session, Des Moines, 1905.

The date of the next Annual Meeting of the Michigan State Medical Society has been fixed for May 23, 24, and 25, 1906, at Jackson.

Progress of Medical Science.

MEDICINE.

The After Treatment of Pulmonary Tuberculosis.—J. A. Wilder (Denver, Colo.) emphasizes the great tendency toward relapse and chronicity of tuberculous ulceration in the lungs as well as in other parts, e. g., the skin and bones, and thinks there is a tendency at the present time to take too optimistic a view of its curability. The disease is practically always more or less advanced from the pathological standpoint before it is recognized clinically. Although some patients have such good resistance that they recover in spite of unfavorable surroundings and methods of living, the majority require a continuous life for years rather than months under the most favorable hygienic and meteorologic conditions before there is assurance that their lesions are permanently healed. Placing the patient under proper conditions for a short time often causes the disease to become quiescent, but this is only the first step in the cure of a disease that, on account of the nature and severity of the pathologic lesions, is essentially of long duration. In an analysis of 100 cases of pulmonary tuberculosis that have been at least quiescent for from one year to ten years, the average period of quiescence being three years nine months, he finds that at the present time 87 are either quiescent or cured and able to work. Twenty-five of the 100 cases have at some time relapsed. Thirteen of these have relapsed and recovered, eight have relapsed and died, and four are at present chronic invalids. One patient died from cancer of the stomach without relapse of his pulmonary trouble. Of these cases 67 were originally classified as incipient and 33 as moderately advanced or advanced. The period of quiescence before working or returning home varies from no time to 36 months, the average being eight months.—*American Medicine*, October 7, 1905.

Counter-irritation.—John W. Wainwright tells us that local irritation cannot exist without causing general changes which affect the entire organism. A distant relation exists between irritation of an internal organ and that part of the skin supplied by the same segment of the brain or spinal cord. The nervous influence from the diseased organ affects the superficial areas supplied by the sensory nerves from the same segment of the cord. The most cor-

rect explanation of the action of counter-irritation, is through the reflex effect of sensitive cutaneous nerve areas on the deeper parts. Counter-irritation is used to lessen congestion and inflammation of the deeper organs, to relieve pain, and to promote the absorption of the deep products of inflammation. Rubefacients produce a mild redness and irritation, and do not destroy the skin; they are used in functional disturbances. Vesicants cause structural changes of the skin and underlying tissues, and are used in chronic conditions or when inflammation has produced a permanent change in organs or tissues. Pustulants cause a pustular eruption and are seldom used. Blisters of various kinds are useful in many conditions. The ethereal tincture of capsicum forms an elegant and effective pustulant. Blisters are contraindicated in the aged, in gout, diabetes, and debilitated conditions, and in pregnant women. They should never be applied to the mamma or scrotum or over bony prominences. They are applied over a point intimately connected by nerve fibers with the seat of inflammation. The actual cautery is one of the best means of counter-irritation.—*Medical Record*, September 30, 1905.

Insomnia and its Treatment.—J. Sanderson Christison says there are three principal theories of sleep: (1) Anemia of the brain and dilation of abdominal and peripheral blood-vessels; (2) autointoxication from waste products which suspend action of the brain cells; (3) interruption of currents between brain cells owing to retraction of their dendrites. No condition proved except a reduction of the flow of blood to the brain; sleep a natural appetite produced by fatigue; the senses and spinal cord only partially sleep; greatest depth of sleep in normal persons usually occurs in the second hour, while in psychopathic persons it commonly occurs towards the end of sleep. In narcotic sleep the senses are more completely shut to external stimuli than in normal sleep, while in hypnotic sleep the senses are excessively active and keen. Characteristics of the sleep of coma: In sleep respiration changes in character, becoming almost entirely thoracic, costal and more shallow. Occasionally the Biot breathing or Cheyne-Stokes rhythm may exist without any apparent significance. Nearly 40 per cent. of persons in ordinary health between 20 and 30 years of age talk in their sleep at times, and most can answer questions while asleep.—*American Medicine*, October 7, 1905.

SURGERY.

The Choice of Method in Operating Upon the Hypertrophied Prostate.—Willy Meyer advocates the use of the three methods in general use in operating on the enlarged prostate, according as each method fits the case to be treated. It is not wise to practise one to the exclusion of the others. Each of the methods, perineal, and suprapubic prostatectomy, and galvano-caustic prostatotomy has its own decided merits, and holds a distinct place in surgery. Operation for enlarged prostate must be urgently recommended to most patients with enlarged prostate as soon as it becomes necessary for them to use the catheter habitually. The death rate following operations is 5 per cent. or less; the mortality due to pyelonephritis resulting from self-catheterization is much greater. The author has performed Bottini's operation on fifty-nine cases, perineal prostatectomy nine times, the suprapubic operation twenty-two times. The only deaths by the perineal method were from the anesthetic in one case, and in a case almost moribund at the time of operation. Of the twenty-two suprapubic operations, seventeen cases of benign hypertrophy are living, two died of causes not due to the operation; three of cancerous hypertrophy died of causes due to the nature of the disease. The author believes that it is possible to cut the grooves with the galvanocautery both deep and wide; that median lobe is a contraindication to the Bottini operation, if it is possible to do an enucleation; the cystoscope is of value in explaining the conditions at the neck; Bottini's operation, even when done twice, does not prevent a prostatectomy, should that become necessary. But, being a purely intravesical operation, it has many failures, and sometimes entails tedious after-treatment. If radical operation is refused it should be done. When prostatectomy is done full power over the urine is obtained. A small portion of the urethral mucous membrane may have to be removed with the gland, but it is no disadvantage. There is little choice between the perineal and suprapubic routes. In the perineal operation there is a rapid return to normal control of the urine, and leakage over the abdomen is not present. The suprapubic operation can be done in less time. Cystoscopy should always be performed before Bottini's operation, as the hypertrophy may be entirely intravesical. In advanced carcinoma Bottini's operation is to be preferred, since all the cancerous metastases cannot be removed. A gland palpable by rectum and rising not far from the sphincter

muscle can best be attacked from below; when higher up and projecting into the bladder it should be operated on from above. When soft and composed of small lobes, operate from below. When complicated by a large calculus work from above. The preservation of the sexual power is important, and the suprapubic method retains it in the largest number of cases.—*Medical Record*, October 7, 1905.

Surgery of the Stomach.—Bevan (Chicago) deprecates unnecessary operations, due to too great enthusiasm of qualified operators, and the undertaking of this class of work by men who are not fitted. He then discusses surgical treatment of gastric carcinoma, and of gastric ulcer, complications and sequels. He urges for carcinoma radical removal or non-interference, and is not in favor of the palliative measure of gastroenterostomy. In technic, he prefers the suture to the use of either Murphy's button or the McGraw ligature. Ulcer is the province of the surgeon only after intelligent medical treatment fails. The complications and sequels of stomach ulcer which demand surgical treatment without question are perforation, obstruction of the pylorus, hour-glass contraction of the stomach, and such secondary conditions as perigastric adhesions and abscess, subphrenic abscess, etc. One of the sequels which must be considered is that of a carcinoma development in the ulcer. There can be but little doubt but that this does occur very frequently. Pyloric obstruction and dilation of the stomach furnish by all odds the most satisfactory groups, as far as the results from surgical treatment are concerned; these cases should practically all be submitted to surgical operation.—*American Medicine*, Sept. 30, 1905.

Cancer of the Mouth.—W. W. Grant, Denver (*Journal A. M. A.*, Sept. 30), criticises the usual operation for mouth cancer as disfiguring and only suited for small growths with large mouths. He makes, instead, two straight incisions, one on each side of the growth, connected by a straight transverse incision at the base, leaving a quadrangular space to be filled by flaps. These are formed by incisions downward and backward from each lower angle of the wound, and are separate from the inferior maxilla and united in the middle line. The angles of the mouth are incised and covered with underlying mucous membrane, no denuded surface is left, and no grafting is necessary. The chin tissues are left undisturbed unless diseased. The oblique lateral incisions permit the removal of the submaxillary glands (except the submental which may require a second incision), and the exploration of the anterior triangle can be made. He compares this method with others now employed, and points out the advantages claimed for it—the removal of the glands through the flap incisions, the absence of denuded surfaces left, the slight tension of the lip, the better cosmetic results, etc. Five cases are reported.

OPHTHALMOLOGY.

A Study of Failures in Ophthalmic Practice.

—George M. Gould sets forth the details of fifteen reasons for failures to relieve the common systemic results or reflexes of eyestrain: —(1) The want of a single good refraction school in the world. Instead of ophthalmology, being as Helmholtz said, the most accurate and scientific of the departments of medicine, he thinks it the most inaccurate and unscientific; and this is due to the lack of systematic and adequate training in the difficult art of refraction. (2) Bad case-recording, omitting the life history of the patient's ailments, or "the biographic clinic," leaves the cure or non-cure unknown or indefinite. (3) The inexperience, ignorance, or impertinence of the optician, incapable of doing his proper work, and aspiring to be an oculist, also prevents good results. (4) Changes in the patient's refraction, not followed by retesting and changes in glasses are another source of failure. (5) Incorrect diagnosis of ametropia is the most frequent cause of failure. (6) The presence of head-tilting often causes an inexact placing of the axis of astigmatism. (7) The morbid writing posture, coupled with its result, lateral spinal curvature, continue the consequences of eyestrain. (8) Non-allowance for the patient's personal equations may frequently account for non-success. (9) Tenotomy for heterophoria does not cure the cause of the heterophoria, which is ametropia. (10) Ascription of the morbid symptoms to general disease will not end in cure if they are due to neglected eyestrain. (11) Subnormal accommodation is far more frequently present than is suspected, and distance correction of the ametropia alone will not give relief. (12) "Hysteria" often caused by eyestrain may persist, when chronic, although the eyestrain has been neutralized. (13) Patients living at a distance because they cannot be watched closely, are likely to prove "failures." (14) Despair of curing in an obstinate case may lead to too speedy renunciation of effort. (15) The secondary results of long-continued eyestrain may be too chronic or deep-seated to cure at once or to cure at all. Despite all these reasons, however, it is contended that in no department of medicine are the cures so near 100 per cent., so speedy, or so gratifying as in skilled refraction work. —Medical Record, September 30, 1905.

Asthenopia due to Latent Hyperphoria.—C.

DeHayne Hallett describes a case of severe and

agonizing neuralgic headache, which had occurred frequently during a period of fifteen years. The headache would incapacitate the patient for work and confine him to a dark room for several days at each occurrence. He had been treated by two competent oculists without relief. The author found that there was a combination of astigmatism and lack of muscular balance in the eyes, the muscular error in the two eyes being exactly opposite. After correction by prisms of the hyperphoria revealed by examination, it was found that there was a larger amount of latent than of manifest hyperphoria, and an increased correction was made on two occasions, with the result of permanent relief of the headaches. —Medical Record, October 7, 1905.

Differential Diagnosis of Intraorbital Tumors.—F. B. Tiffany, Kansas City, Mo. (Journal

A. M. A., Sept. 30), remarks that, as in the case he reports, a differential diagnosis of the nature of an intraorbital tumor can not always be made, but that as a rule, with careful examination and definite knowledge of all the symptoms, one can be fairly certain of the real nature of the growth. Malignant tumors run a rapid course and sooner or later cause pain, sometimes severe, and if unchecked they destroy vision and attain enormous dimensions. Benign tumors, on the other hand, grow slowly, rarely cause pain, and do not usually destroy vision, unless they produce optic neuritis and atrophy by pressure on the optic nerve. One symptom, proptosis, is common to all forms except a luxated lachrymal gland, and the direction taken by the exophthalmos indicates the locality of the tumor. If on palpation the growth is hard and immobile, it is probably osseous, especially if of slow development. If soft and fluctuating it may be serious, phlegmonous or sanguinous. If soft and yielding without fluctuation or pulsation, it may be fatty, as a lipoma. If less yielding, it may be fibroid or glandular, as an adenoma. Pulsation and bruit ceasing with pressure on the carotids characterize vascular tumors, but it is difficult to determine the varieties of pulsating tumors. The vascular are more resistant than aneurisms and patients with angioma complain of a knocking, roaring or buzzing in the head and ears. In angioma, in all cavernous tumors and in aneurisms, the exophthalmos, is reduced on pressure or when the patient takes the supine position. Tiffany reports at length a case illustrating some of the difficulties of diagnosis.

GYNECOLOGY.

A Case of Combined Extrauterine and Intrauterine Pregnancy.—H. T. Miller's patient was a woman of forty who had had two children, six and fourteen years previously. In the fall of 1904 symptoms developed which indicated an extra-uterine pregnancy, and when she came under the author's care in May, 1905, this diagnosis was made. On opening the abdomen a cystlike tumor having a pedicle containing the right fallopian tube was removed. The cavity of the sac was distended with dark colored blood and contained the remnants of a placenta and degenerated fetus. The size of the uterus gave rise to the suspicion of an intra-uterine pregnancy, which was verified on the second day after the operation by the spontaneous expulsion of a perfectly formed four months fetus. Recovery was uneventful. —Medical Record, October, 7, 1905.

Large Desmoid Tumor of the Abdominal Wall.—E. E. Montgomery and P. B. Bland (Philadelphia) state that the patient operated upon for this tumor was 26 years of age, married at the age of 19, and gave birth to two healthy children. The tumor first appeared seven years before operation and was observed in the lower portion of the abdomen and upon the right side, about the middle and lower thirds of the rectus muscle. The growth gradually increased in size for the first six years of its life, but during the last year it grew very rapidly. The tumor after removal measured 76 cm. in its greater circumference, and 66 cm. in its lesser circumference. It weighed 19 pounds. It had its origin in the sheath of the right rectus. It was of a pearl-ish pink color, of dense consistence. Microscopically it was found to be composed of young connective tissue cells. The blood vessels were numerous, and in many areas the vessel walls seemed to be composed of tumor elements. The authors review briefly the history of desmoid tumors and claim that this is the largest thus far reported. They point out that the tumors usually occur in women, and those who have borne children; frequently after childbirth, and, therefore, they believe that pregnancy and labor have some influence in their production.—American Medicine, Sept. 30, 1905.

Extremely Long Pregnancy.—J. Arthur-Lamb, Kalispell, Mont. (Journal A. M. A., September 30), gives an account of a case of preg-

nancy which lasted, dating from the last menstruation, 339 days; and dating from the last coition 313 days. These data seem to be well fixed. The cause attributed by him was a cranial deformity of the fetus, interfering with prompt natural delivery, the exact nature of which is not stated, though it is said that the brain was exposed, giving the suggestion of a breech presentation. It would have been interesting, he remarks, to have known how long this case would have gone had not quinin been given to cause uterine contractions.

The Technique of Abdominal Section.—Denslow Lewis advocates, in abdominal operations, the use of an incision large enough to enable the operator to see what he is doing; he secures perfect hemostasis throughout the operation; he turns in all raw surfaces so that only smooth peritoneum is left at the end of the operation; in pus cases removal of the source should be carried out at once, without unnecessarily prolonging the operation and endangering the patient's life. Sterile catgut is used for sutures instead of silk. After operation no opium should be given and as little anodyne as possible. The bowels should be moved early by calomel and enemata, and thirst relieved by salt solution by rectum. Uterosuspension the author disapproves of, since the symptoms are referable to metritis and other conditions, which should be relieved when the prolapsus or retroversion will be cured. In suppurations one should open and drain, but not make the operation any more severe than is necessary as the patient's strength is easily exhausted. Thorough drainage may be established through the vagina. Suppuration in peritonitis requires drainage, and irrigation is of value. In cases of rupture of the bowel or traumatism the wound should be closed at once with a Lembert suture, the edges well turned in. When part of the gut must be removed the author prefers closure of the ends and a lateral anastomosis. In ruptured ectopic gestation the sooner the abdomen is opened the better. The cesarean section should be used more frequently for contracted pelves, etc. Small fibroids should be enucleated and for large or multiple ones supravaginal amputation is to be preferred.—Medical Record, September 30, 1905.

HYGIENE.

The State and Federal Public Health Services.—Fulton discusses the probable influence on state boards of health of the Federal law under which the U. S. Public Health and Marine Hospital Service is now organized. This law, he thinks, will serve the purpose which medical men have long had in mind in advancing a National board of health. Powers and privileges not heretofore accorded to other departments of state government are by this Act of Congress conferred on state boards of health. Each year the Surgeon-General must call a conference of state boards of health, and he must call an extraordinary conference whenever any five state boards of health unite in a request to the U. S. Public Health Service. The most serviceable feature of the new law is the annual conference, as the orderly and steady progress, which may be made from year to year by concerted effort, is vastly better than the reforms brought about by the drastic methods of the extraordinary or emergency conference. By co-operation with the Federal Bureau it is possible to bring a majority of state boards up to good standards of efficiency and to advance the standards steadily. Hitherto there have been no standards. It is the real function of the annual conference to wipe out the spectacle of confusion and discord, of high and constant efficiency in one state, alternating worth and worthlessness in another state, and unvarying inefficiency in a third state. The tendency to exempt boards of health from political spoliation is growing stronger in this country. The people begin to learn that the hygienist is a highly specialized man of science. Boards of health are less commonly regarded as useful only in times of emergency. They have found their routine, and their daily tasks to interest the public. The people themselves are now active in some of the problems of special hygiene, and the official hygienist must prove his professional fitness in the company of enthusiastic amateurs. The people demand the suppression of tuberculosis, and the enthusiasm of the voluntary associations now engaged in the American movement against tuberculosis is alarming, because it brings the hygienist into intimate relations with the sociologists, who have a body of useful knowledge about the disease and certain new ideas about its prophylaxis. These new allies will certainly discover our poverty in recorded data, in which

they are strong, and cannot fail to note the delinquency of boards of health. Strengthened by such co-operation, the forward movement of American hygiene is definitely assured. The kind and degree of success desired may not be fully attained, but the awakening of the people to the possibilities of preventive medicine means, in official life at least, the crack of doom for amateur sanitarians. (*American Medicine*, October 7, 1905.)

School Hygiene.—Alice M. Smith, Tacoma, Wash. (*Journal A. M. A.*, September 30), advocates an elaborate national, state and local system of boards of school hygiene and preventive medicine. The national board composed of representative non-partisan physicians with the commissioners of education and of public health as ex-officio members, should have a general advisory and supervisory function. It should make investigations on school hygiene and publish results, be an authority on school construction and furnish plans, superintend the civil service examination of all medical men connected with school inspection and supervision, have charge of examination of school janitors and should publish circulars and bulletins of information. The state board should supervise the location and construction of school buildings, should help the national board to frame laws, should promote proper legislation, supervise the physicians holding office under the system, should have power to close unsanitary schools, decide as to the management of incorrigible children, and be the final repository of all statistics and records. The local board should supplement the state board; it should be composed of non-partisan business men and physicians, with the municipal health officer ex officio. It should keep the records of the scholars during school age, and exercise such functions as ordinarily belong to the school boards of the municipality that are not otherwise provided for. All these boards should be federated so as to have complete unity of action. She would also have the principal of a public school a graduate physician, looking after every matter concerning the health and welfare of the scholars. He should have systematic methods of entrance examinations, including family history and heredity, physical measurements and condition, etc. There should also be a county medical superintendent acting for the rural schools, and the system outlined by Dr. Smith also includes social organizations for the education of parents, distribution of pamphlets of instructions, industrial homes for the incorrigible, etc. Such a system, if carried out, she thinks would go far to prevent epidemics, to decrease crime and to develop the mental, moral and physical condition of the community. It would put physicians in their proper professional relations to society and open up a wide field of usefulness to an overcrowded profession.

BACTERIOLOGY AND PATHOLOGY.

Cylindroma of the Orbits and Lids—J. E. Weeks, New York (Journal A. M. A., September 30), reports two cases of this type of tumor, characterized by the formation of hyaline cylinders and tubules, both occurring in the orbit or eyelid. He remarks that these tumors contain tissue developing from both mesoblastic and epiblastic tissues and are, therefore, properly mixed tumors, but that the hyaline change is so characteristic that the retention of the name cylindroma is justifiable. From the reported cases these growths seem to be less malignant than ordinary sarcoma and carcinoma, but they require very thorough removal. If the osseous tissue is involved it should be removed. Metastases are rare. The age incidence ranges from 17 to 72 years in the reported cases. A number of cases have developed after traumatism.

The Action of Acid-fast Bacilli When Inoculated into the Peritoneal Cavity of White Rats.—Randle C. Rosenberger (Philadelphia). All the inoculations were made into the peritoneal cavity. The animals were killed, some in 30 days and others in 54 days. Nodules or tubercles were constantly produced in the peritoneal cavity and in one or two cases nodules were produced in the parenchyma of the liver. Segments of the pancreas adjacent to sections of the liver or spleen showed lesions. The heart, lungs, kidneys and intestines remained exempt from the infection. Histologically the nodules in all the animals were identical, being made up of large, more or less oval, slightly granular cells; lymphocytes, spindle-shaped cells, and polynuclear leukocytes. In some sections were cells possessing 10 to 12 nuclei, for the most part peripheral, the others being in the center of the cell. Newly formed tissue was evidenced by the presence of a large number of small blood-vessels and blood sinuses limited by the cells already mentioned, principally the oval and spindle-shaped cells. In some of the masses small foci made up entirely of polynuclear elements and suggesting pyogenic infection were present. None of the animals showed illness or emaciation at any time and they apparently would have lived indefinitely. Similar experiments upon guineapigs were entirely negative. Cultures obtained from the lesions produced the same phenomena in a second series of white rats. The organisms used were Moeller's grass bacillus Nos. 1 and

2; Korn's grass bacillus Nos. 1 and 2; mist bacillus, horse dung bacillus, milch bacillus, Karlinski's bacillus, blindachleichen bacillus, Grassberger's butter bacillus, Petri Rubinovitch bacillus, B. tuberculosis piscum and margaritin bacillus.—American Medicine, Sept. 30, 1905.

Fasciolopsis Buskii.—J. T. Moore and J. J. Terrill, Galveston, Texas (Journal A. M. A., Sept. 30), report finding this rare intestinal parasite. This, the first case on record outside of Asia, occurred in a Lascar sailor from an English steamer, who died in a Galveston hospital. The parasite was found at the post-mortem made to verify the diagnosis of typhoid fever, which was confirmed. The symptoms attributable to the parasite are unknown, but it probably causes intestinal irritation and possibly anemia. Siles' descriptions, generic and species, are reproduced in full. The interest of the finding is largely in the possibility it indicates in its introduction into this country. As it requires particular species of snails to act as intermediate hosts in its native home, it is by no means certain that such introduction is possible.

An Apparently Distinct and Hitherto Undescribed Type of Parasite in Pernicious Malaria.—H. M. Smith reports the finding in the blood of 119 cases of malaria at the First Reserve Hospital, Manila, P. I., a parasite so peculiar and distinct from any previously described as to render it probable that this form is a distinct type of the parasite of pernicious malaria. The parasites are small hyaline discs of an oval spindle form, nonpigmented and lying in the protoplasm of the red blood corpuscles. They have a very sharply defined outline, are highly refractive, and in the center of each form is a small round dot of hemoglobin. Their short diameters vary from 1-5 to 1-10 the diameter of the red blood corpuscle, their long diameters being about twice as great. On account of their spindle shape he designates them "spindle forms." They have no ameboid motion, but move by revolving on their long axis and by swinging around on their short axis, using one end as a fixed point. This motion is the most peculiar characteristic of the parasite. They stain with great difficulty and then only the periphery to a slight extent. No development of any nature has been observed in these parasites, and no forms besides these "spindle forms" were ever discovered in the blood before death or in the blood and organs after death in the four fatal cases.—American Medicine, October 7, 1905.

THERAPEUTICS AND PHARMACOLOGY.

The Local Treatment of Rabies.—Konradi, in the *Centralblatt für Bakteriologie*, believes that the development of rabies can be prevented by 1-1000 bichloride solution applied to the site of inoculation. Application should be within 12 to 30 minutes, but may be of value after that time. The virulence of rabie virus is reduced by the antagonism of the organism. Individual susceptibility must be reckoned with in laboratory experiments, as well as in practice.—*The Practitioner*.

The Disagreeable Odor of Ichthyol.—A drug too valuable to be neglected on this account, can be concealed by the addition of oil of citronella, 20 minims to the ounce of ointment.—Ex.

Atony and Associated Pathological Conditions of the Rectum and Colon; With Mechanical Methods of Treatment.—Fenton B. Turck advises the use of massage and stimulation of the atonic intestine by the use of small rubber bags inserted in the rectum and sigmoid flexure, and inflated with air. The inflation can be used steadily for the desired amount of time, or the bag may be alternately relaxed and inflated again, thus producing a kind of massage of the intestine. Atony of the intestine is the result of fatigue toxins generated by the intestine, and antitoxins may also be generated, which will restore the intestine to its normal condition. The toxins of fatigue are not dializable, and remain where they are formed. Massage hastens the union of antitoxins with toxins. The abdominal circulation is also an important factor in atony of the intestine, and massage by inflation stimulates the circulation. Drugs, surgery, general gymnastics, and the various mechanical methods of treatment have all failed in curing atony. The injection of air confined in the rubber bag places the amount of distension to be used under the operator's control. It may be made intermittent. Hemorrhoids, ulcers, proctitis, all are benefitted, as well as prolapse of the bowel, and various associated uterine conditions. The results of the author's experience have shown that the restoration of function in the intestine is permanent.—*Medical Record*, October 7, 1905.

Prevention of Chloroform Sickness.—Denuce, of Bordeaux, points out in *La Presse Medicale* that in every chloroform narcosis, a by no means inconsiderable amount of

chloroform reaches the stomach by reflex acts of swallowing, and exerts there an irritating effect, which expresses itself as vomiting during and after the narcosis. He has introduced a plan of making every patient about to take chloroform, drink a certain amount of water before hand in order to dilute the chloroform swallowed, and so prevent the irritation and its effect. Beginning an hour and a half before the operation the patient drinks a glass of water every half hour, taking the last glass immediately before the administration begins. Four glassfulls are taken, about 28 ounces. The results have been excellent, for not a single patient has vomited, or showed signs of nausea during or after the operation.—*The Practitioner*.

Hot Salt Solution for Ulcers.—Dr. A. Veyrassat, of Geneva, writes in the *Revue Medicale de la Suisse romande*, June, 1905, on the use of hot physiological salt solution for the treatment of ulcers of the leg, which he extols, over all antiseptics. These, if strong enough to be bactericidal, must necessarily cause death of the tissues already lowered in vitality. The salt solution, 7-1000, used at a temperature of 50°C. has a physiological effect on the tissues promoting phagocytosis, and at the temperature employed is fatal to some bacteria though not to spores. The ulcer is irrigated with the hot solution for a quarter of an hour and a sterilized dressing (gauze, cotton-wool, and bandage) is then applied. This is done daily until the ulcer cleans, then as often as necessary. Healing proceeds rapidly, and the method is especially suitable for cases which cannot afford the time to lie up in bed.—*The Practitioner*, September.

Magnesium Treatment of Cavernous Tumors.—A few years ago E. Payr recommended as one of great efficacy a method for removing inoperable cavernous tumors by means of magnesium pencils inserted in the growth. Tollens (*Zeitschrift für Chirurgie*, Vol. 77, Nos. 1 and 3) reports his experience with the method in an angioma of the skin on the arm of a four months' old child. A number of thin magnesium pencils were thrust through a small opening in the skin directly through the tumor and permitted to remain in place. No diminution in the size of the growth could be demonstrated, and as it was, on the contrary, increasing in extent, it was excised four weeks later in several sittings with favorable results. Subsequent examination of the tissues showed that the magnesium produced very little reaction, and in this case, at least, the method must be looked upon as a failure. (*Medical Record*, Sept. 30, 1905.)

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OVERLOOKED ANOMALIES OF THE EYE WITH PRONOUNCED NERVOUS REFLEXES.*

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Jackson.

It is not my purpose, at this time, to undertake an exhaustive study of the nervous reflexes of the eye, and the consequent functional disturbances caused thereby. We readily appreciate the effect on the general nervous system of an harmonious action of this complicated visual apparatus, and, conversely, the long series of nervous reflexes that necessarily follow when this visual harmony is upset. The important problem for us is to determine by systematic search the exact cause of secondary disorders. We may make our classification of disease as complete and precise as we please, and, at the same time, fail to understand the fundamental causes or primary conditions that serve as the exciting factor in these reflex nervous disturbances.

Our aim must be to differentiate between primary disease and secondary affection. In the former case, we look for some pathological condition, that has been caused by some outside influence acting directly on the parts involved in

the diseased process, and so producing a consequent impairment of function; while in the latter class of cases, the symptoms are indicative of a primary lesion or anomaly somewhere in the body and very often at a remote point. These disorders, and, particularly, those of a reflex nervous nature, I wish to present briefly at this time by the consideration of cases that have come under my own personal observation. In all these instances, the functional irregularities were due, without exception, to anomalies of the eye.

The principal feature of interest in regard to these cases is, that the patient, while suffering annoying nervous symptoms in various parts of the body, regarded the local disorders of the eye as too insignificant to have any influence whatever on the nervous manifestations in other regions; so, the eye affection was allowed to go wholly overlooked for a time, or, at least, until the family physician had exhausted all his resources in the vain endeavor to give relief to his patient. Positive proof of the intimate relation existing between the eye and the

*Read before the Michigan State Medical Society at its annual meeting at Petoskey, 1905.

general nervous system is shown by the prompt disappearance of all reflex nervous disturbances, simply on correcting the visual error.

Every oculist has, almost daily, patients troubled with all sorts of afflictions and subject to various nervous and functional disorders; who have suffered for years with headache, dizziness, nausea, and vomiting. In this number are found not only laborers and shop girls but people of education and culture as well. They go for years with pain in the head and annoyed by many reflex disturbances of a nervous nature. And, because the eye symptoms are so slight as to escape attention entirely, they have not the slightest idea that their whole ailment is caused by defective vision. So, they wear no glasses but the muscles of accommodation must be kept in a state of extreme and constant tension. In other words, some people have marked defective accommodation but do not know it, since the eyes in themselves cause no discomfort. They manage easily enough, by persistent will power, to see; but, nevertheless, the ocular muscles are subjected to great strain.

As a consequence of this continued eye-strain there follow a long series of nervous reflexes, as, for example, Nyctagmus, Epilepsy, Chorea, Blephrospasm, Strabismus, Nervous Prostration, and Absentmindedness; in young children a peculiar twitching of the ocular muscles, and in young girls suppressed and irregular menstruation. I wish in this connection to have it understood that we also have these nervous reflexes in cases where the eye symptoms are clearly defined and the visual error manifest from the start.

As the most pronounced symptoms of

eye-strain we have headache, gastric disturbance, and dizziness. In headache, the exact location of the pain varies. Often it is frontal or temporal and, in nervous people, may involve the entire head and the back of the neck. Some patients claim that it is constant and remark: "There is never a moment in my life that I am free from headache." In other instances, the pain comes on only after exertion or close application of the eyes; but generally moderate pain is continuous, becoming more pronounced by work.

Some writers claim that hemicrania, the typical sick headache, is due to refractive anomalies or to eye-strain alone. Dr. Inglis, of Detroit, in the discussion of a paper read before this section at Lansing in 1894 said, in regard to the "Causation of Certain Forms of Headache," "The longer my experience, the more am I inclined to regard eye-strain as the most frequent cause of the so-called sick or nervous headache." To a certain degree this statement has been verified in my own experience. But, I consider that there is a definite neurosis, aside from all ocular symptoms, that serves as the principal etiological factor in these cases; while I regard eye-strain as a minor influence in bringing on an attack of true migraine. I am frank to state that these views do not meet with the entire approval of many prominent ophthalmologists throughout the country, since some believe, in at least 90 per cent. of cases, that migraine is caused by refractive error alone and may be cured by properly adjusted glasses. I am pleased to note that Dr. Casey A. Wood, of Chicago, is now making an exhaustive study of this disease; and, undoubtedly his findings will be of inestimable value to the profession. In his own words he says: "It

will at least be of interest to know whether these cases belong in the province of the Oculist or that of the General Practitioner."

When subject to dizziness, which is a common result of eye-strain, and often associated with headache, the patient complains of a dazed feeling, and concentration of thought and sight are difficult. Gastric disturbance, when present, produces a feeling of nausea. In regard to cases of this kind, I may state that the physician generally inquires, by way of diagnosis, if the patient has any defects of vision; and, being assured that sight is as good as ever, naturally concludes that there is no trouble with the eyes. To illustrate the beneficial effect of simple correction for eye-strain on nervous disorders, I will mention the following cases:

Case 1. Florence D., age 16, of healthy parents.

History—Says she never enjoyed perfect health and complains of continual pain in the occipital region, together with feelings of dizziness and nausea; states she is absent-minded, cannot study, and so has found it difficult to keep up her school work, as also her music. Has been growing worse the past two years, or since the commencement of her menstruation, which has been painful and irregular. The attending physician, supposing her case to be one of simple menstrual disturbance, directed his treatment toward that end.

Examination: V-O.D.=20/50. O.S.=20/40. With the exception of an oval nerve with indistinct outline, the fundus was practically normal. Muscle test was negative. Without cyclopegic she readily accepted in O.D. C-D 1.25 ax 1.50 and O.S. C-D 1.25ax180. These glasses

were worn from the first without any particular discomfort. The improvement was prompt and decided. Her headache, nausea, and general nervousness subsided and her menstruation became normal. In six months' time she called herself perfectly well. Her physician said to me afterward: "It was wonderful to see how this girl improved simply by giving her a pair of glasses."

Case 2. Rev. J. R. D., age 26.

History—Has always been a diligent student; complains of headache, dizziness, and a sense of nervous prostration, so accomplishes his literary work with great effort. Says he has been treated for nervous prostration and insomnia, but with little benefit. Adds that he always improves during the summer vacation, but in the fall, on resuming his pastoral labors and literary work, soon falls into the state above mentioned. Has recently experienced a new symptom, that of double vision, which alarmed him and led to an examination of his eyes.

Examination—Under Hyocain Hydrobromid V=O.D.20/50, O.S.20/70. He accepted O.D. C-D1.50ax22. O.S. C-D 2ax135. These glasses were worn without discomfort and in a few weeks he started for the Pacific Coast. A letter, written soon after reaching California, will explain his improved health. He said: "The sight of mountains, and plains, the sea, and cities, with the fragrance and beauty of flowers, are all the more beautiful, because of what science through you has done for me. I wear my glasses all the time, except when I sleep, and feel that I am well and certainly a happy man once more."

An example of marked nervous reflex disturbances caused by eye-strain, is chorea—a disease frequently relegated to

the class of incurables, failing even of slight improvement under the best known methods of medical treatment. I think that every oculist present will, without doubt, agree with me, that the peripheral reflex irritation occasioned by this disease may, after thorough investigation, be attributed in at least 90 per cent. of cases, to overlooked anomalies of the eye. It has been my good fortune in the past to have had several of the apparently hopeless cases, in which no relief had been previously obtained even after exhausting all ordinary forms of treatment. I think I am perfectly safe in making the somewhat surprising statement that the majority of the leading neurologists and pathologists of today are agreed that chorea is essentially a microbe disease. To substantiate this statement I quote from a reputable author in the *American Journal of Medical Sciences*. He says: "The more recent studies of the pathology of chorea have led to a practically unanimous conclusion, that the seat of the disease is primarily in the blood-vessels and in the blood, with secondary degenerative changes in the parenchyma; and, that the cause is either some microbe or toxic substance, or both." In view of the above statement, I think that oculists in general should carefully investigate these cases, correct the eye-strain and report their findings and results. Such a course would undoubtedly have a salutary effect in influencing the conclusions to be drawn by neurologists in regard to this disease; and, as a result, also be of great practical value to the intelligent practitioner as well. I wish to emphasize the one fact that "eye-strain may exist without symptoms referable to the eyes themselves of which the patient is conscious." This being true, it is easy

enough to attribute the whole cause of chorea to functional disturbance in the gastro-intestinal tract or in the cerebro-spinal nervous system.

I have in numerous instances had cases in which treatment with drugs was employed for months without affording any appreciable relief from the distressing spasmodic contortions. In all these instances, strychnine, chloral, bromides, cold-packs, Cod-liver oil, arsenic, and electricity, and the like were used to no avail. Prompt and noticeable benefit followed immediately on the proper correction of the eye-strain. In this connection, I wish to report a few typical cases in proof of what I have just said.

Case III. Miss C., 16 years of age.

History—Of healthy parents; first noticed an unsteady movement of her arms and facial muscles two years ago, also that she was inclined to knock things over. When in company she was very much embarrassed, and likewise unsteadiness in walking was manifest. Her menstruation had always been normal and digestion perfect. The last six months previous to consulting me were attended with a rapid increase in all her previous reflex nervous symptoms. She had been carefully treated by her family physician but with no apparent relief. Her parents, having heard of similar distressing symptoms which were remedied by glasses, decided to try a like expedient.

Eye examination—Without cycloplegic $V=20/22$. On muscle test 4 degrees of Esophoria. Circumduction, right eye 3 degrees, left eye 4 degrees. No Hyperphoria. Under Hyocain Hydrobromid $V=O.D.20/40$. $O.S.20/30$, with 4 degrees of Esophoria. There was no other change from the above muscle test. Ophthalmometer showed a high degree of

Hypermetropic Astigmatism. She accepted $+D1.=C+D1.\text{ax}90$ degrees, and wore same with perfect ease. Two months later, finding that her nervous symptoms were not entirely relieved, I performed a graduated tenotomy; and, subsequently, increased her spherical lenses to $+D1.50=C+D1.\text{ax}90$ degrees. Immediate improvement was manifest and from all appearances she is now perfectly well.

Case IV. Mr. J. C., age 27, by occupation a book-keeper.

History—Mother had myopia. His father and two brothers, all subject to headache, were finally relieved by glasses.

Stated that he had always been subject to headache and had worn glasses $+D1.00$ for the past six years. One year ago first noticed a feeling of nervous prostration, together with a peculiar twitching of the facial muscles and a contortion of the arms. Walking and talking were both tiresome and difficult. Had been under the care of a competent physician all this time, but with little if any benefit. Thought the choreic symptoms were rapidly growing worse. There was no evidence of organic disease, and the sensations of touch as also the power of individual muscles seemed normal. With an apparent tendency toward growing rapidly worse, the prospects of recovery under any treatment seemed doubtful and discouraging.

Eye examination—Under Hyocain Hydrobromid O.D. $V=20/50$. O.S. $V=20/70$. Ophthalmometer showed a high degree of Hypermetropic Astigmatism. On muscle test found 7 degrees Esophoria with homonymous Diplopia and but little abduction.

Treatment—All drugs were discontinued for one week and a full cyclopegic

effect continued for that time, after which he accepted O.D. $+D2.=C+D3.50\text{ ax }135^\circ$. O. S. $+D2.=C+D3.\text{ax}60^\circ$. $V=20/20$. He wore these glasses with but little discomfort and there was noticed at once a decided improvement. He slept better and gradually all twitching of muscles of face and extremities subsided. In six months his condition was such that he called himself perfectly cured. There being 7 degrees of Esophoria, and an apparent lack of co-ordination in the action of ocular muscles, and still but slight abduction, I performed a graduated tenotomy on the Internal Recti Muscles, after which recovery was speedy; and, now, three years after treatment, he is enjoying perfect health. Removal of glasses for any considerable time causes him immediate discomfort.

I would be pleased to report other cases of marked choreic symptoms in connection with eye-strain, but time forbids. I will, however, mention a case of "chronic gastric intestinal disturbance," that was entirely cured by the simple correction of the eye-strain, after having resisted all forms of drug treatment for nine years.

Case V. Mrs. A. R. P., age 27.

History—During the past nine years has been subject to repeated and severe attacks of indigestion and fainting spells, lasting from three days to three weeks; which, at times, were so aggravated that she would be materially reduced in flesh. Had never felt the need of glasses, as she could see near by and at a distance with perfect ease. But, she admitted experiencing a sense of dizziness and nausea after using her eyes for a time at close work.

She never for a moment attributed the cause of her trouble to her eyes.

Eye examination—Under Hyocain Hydrobromid, O.D. V=20/XL. O.S. V=20/XL. Abduction 24 degrees, adduction 5 degrees. No hyperphoria, no esophoria. Glasses given: O.D.+D1.50 =C—D3.ax180°. O.S.+D2=C—D3.50 ax180°. From the first, the improvement in her condition was marked and continuous; and now, after having worn the glasses for one year, she is feeling so well she does not consider it necessary to return for an examination of her eyes. Her previous chronic constipation and gastro-intestinal disturbance entirely disappeared and she enjoys perfect health. It would be interesting to give the report of several cases of epilepsy cured by the

correction of eye-strain alone; but the time allotted for this paper forbids.

In conclusion, I wish to emphasize the fact that the field of the oculist is necessarily a large one. The more we study the complex mechanism of the eye and its reflexes, the greater will be the benefit to suffering humanity. From this country and from across the water comes abundant and confirmatory evidence, showing, without a shadow of a doubt, that defects of the eye and eye muscles do constitute an important factor in the causation of many forms of obscure nervous diseases; that this fact is being recognized by the great body of general practitioners; and, finally, that the diagnosis of a great per cent. of diseases is radically incomplete without a most thorough examination of the eyes.

A CASE OF LATE, POSTERIOR, MESOMETRIC PREGNANCY.*

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Detroit.

The definite causes of the occurrence of pregnancy outside the uterine cavity are not well understood, and apparently rest entirely on theoretic grounds, as the following opinions demonstrate:

Roberts says it may be due to a want of development of the Fallopian tube, or its permanent contraction, any swelling of its mucous membranes, or to an abnormal length of the tube; or it may be caused by an extra weight or impaired motility of the ovum at its entrance to the tube, or to any interference with the peristaltic action of the tube—if this be needed—for propulsion of the ovum.

Webster also believes the oöspERM may be arrested by a swelling of the mucosa, which simulates a decidua.

Tait, who was the pioneer of discovery

to open up this field of pathologic research, urged inflammation and granulation as a cause, but most recent observers have contradicted this point.

Taylor and Bland Sutton report failure to find this condition a factor, and claim that salpingitis and the occlusion of the tubes, especially in gonorrhœa and the associated sterility, argue against Tait's theory; in fact, a healthy tube is more likely to become pregnant than an inflamed one. It seems to the writer that these objections to Tait's theory are hardly tenable, as his idea was not that an *inflamed* tube became pregnant, but that a tube which had recovered from an inflammatory process, having its physiological functions crippled, becomes pregnant after its lumen has been partially restored—the spermatozoa find entrance but the ovum is obstructed in its passage and so develops in the tube.

*Read before the Michigan State Medical Society at its annual meeting at Petoskey, 1905.

In a large number of cases, however, no history of previous disease can be elicited and no active pathological condition of the tube found to indicate the cause, so that in a large percentage of these cases the cause remains undetected and unexplained. The fact that many cases have had years of sterility previous to the tubal pregnancy would tend to corroborate Tait's theory.

Classification. There is probably one great variety (Bland Sutton), viz: Tubal; but of late there is increasing evidence of the occurrence of primary ovarian pregnancy (Roberts, *Lancet*, Jan. 12, 1901, pp. 100, 101). Martin, Sawyer and Leopold have reported such cases and Roberts gives two authentic cases. This variety is, however, of such extreme rarity, as compared with the tubal, that many operators of large experience have never seen one.

In the tubal variety the chorionic villi grow into the swollen mucosa, and as the ovum expands, the tube is progressively attenuated by distension, and very little attempt at compensatory hypertrophy is manifest, which explains the inevitable rupture or abortion of a living tubal pregnancy during the first four months of its existence. In many cases the abdominal ostium remains wide open, which is an important factor in its relation to tubal abortion and the leaking of blood from it causing the blood drip which, being gradual and without violent symptoms, frequently produces a pelvic hematocoele of apparently obscure origin.

With the advancement of the pregnancy in the tube the uterus increases in size and the decidual membrane forms within its cavity. The discharge of this membrane, which usually occurs with the death of the ovum, and usually at

the time of the rupture of the tube, is of much diagnostic value. In cases which go to the full term where the foetus is retained in the abdomen for a time after its death, the decidua will be shed at the time of the death. The decidua may be a perfect cast of the uterine cavity with three openings, with a rough outer aspect, while its inner surface will be smoother and dotted with the orifices of the uterine glands. So far as known, a decidua never forms in the tubes or cervical canal. Its detachment begins at the os internum. The membrane consists of decidual, i. e., uterine connective tissue cells, and in the first month is two-fifths inch thick, fleshy, ovoid and vascular. It can hardly be compared with the thin, delicate cast of the uterus in membranous dysmenorrhœa, which averages one-twenty-fifth to one-twelfth inch in thickness (Champneys). Any membrane approaching one-fourth inch thick cannot be a dysmenorrhœal membrane unless additionally diseased. The length of the sac in dysmenorrhœa is only $1\frac{3}{4}$ to 2 inches, while in ectopic abortion, sacs are much longer.

Rupture of the pregnant tube. If early rupture does not take place, late rupture is sure to. The limit is usually between the sixth and twelfth weeks, although in the interstitial variety rupture may not occur earlier than the sixteenth week.

The direction of rupture may be upward into the peritoneal cavity, or downward into the cellular tissue of the broad ligament.

Rupture upward into the peritoneum. This may or may not be accompanied by severe hemorrhage, much depends on the extent of separation of the placenta from the tube during the process of extrusion.

In those instances where the placenta retains its connection with the tube, and the hemorrhage is only moderate, the foetus will continue to grow in its new position in the abdominal cavity. Whether much or little blood flows into the peritoneal cavity from such a rupture, there will be no distinct tumor formed by it, the fluid being unrestrained and loose in the cavity, giving the same signs on examination as ascites.

A rupture is always attended with sudden pain and faintness, the symptoms being in proportion to the extent of hemorrhage.

Tubo-ligamentary, or broad ligament, or mesometric pregnancy.—This occurs as a secondary invasion of the ligament and subperitoneal tissues by the downward rupture of the tube, which, according to some authorities (Bland Sutton, Allburt, Playfair) can only occur at its middle portion. This is accompanied by a hematoma and may end the life of the conception and absorption take place, or the pregnancy may continue in this situation.

The hematoma of the broad ligament is sudden in onset, distinctly lateral, tense and fixed, situated very low in the pelvis and frequently passing in front of the rectum, causing tenesmus.

Further course of tubo-ligamentary pregnancy. After rupture downward the foetus may continue to grow beneath the peritoneum in a sac formed by the expanding layers of the broad ligament, the pregnancy being roofed in as well by the expanded ruptured tube, to which the placenta is still attached.

The progressive displacement of the peritoneum, as the foetus develops, is a constant menace to the placenta, so that secondary ruptures are liable to occur,

ending in death of the foetus, or the formation of an abdominal pregnancy, the foetus passing through the rent into the peritoneal cavity. The ligamentary pregnancy may be either posterior or anterior, the situation depending on the direction of the development of the pregnancy. In either case the peritoneum is stripped up from its attachments and forms one side of the retaining cavity in which the foetus is growing. The post-ligamentary is the most common (Dunning), and in these cases the peritoneum is raised upward from the posterior pelvic wall and rectum as far as the sacral promontory, the anterior portion being undisturbed; thus the tumor looks like a pseudo-uterus at operation until its posterior relations are explored.

The displacement of the placenta is at times remarkable. In tubo-ligamentary pregnancy it usually lies close to the child. It is often poorly developed and so acts as an inefficient respiratory organ, causing an illy formed foetus. The placenta is mainly if not entirely formed of foetal tissue and there is no true decidua serotina.

Interstitial pregnancy is liable to go longer without rupture than the purely tubal, but it rarely exceeds the fourth month. The reason for this is doubtless the protection to this portion of the tube by its enveloping uterine tissue. The resulting hemorrhage is the most violent and dangerous. Rupture into the uterine cavity is considered improbable.

Cases of long retention of the dead foetus are recorded. Over a dozen are reported of over twenty years, and three of over fifty years. (Cheston.) After the death of the foetus the liquor amnii is absorbed; the placenta at first increases in size, but later decreases, owing to degen-

erative changes (Knowleley Thornton), and is ultimately absorbed. Finally contraction of the sac takes place, lime salts are deposited; or a fatty change may occur with the production of adipocere (B. Sutton), and at last the skeleton only will remain. Decomposition, suppuration and toxæmia may occur and parts of the foetus ulcerate through the walls of the rectum, bladder or uterus, where unprotected by the stripping away of the peritoneal covering.

Owing to the near relationship of the rectum to the sac, in cases of late posterior mesometric pregnancy they are the most liable to become septic and putrid (Taylor). The following case is an excellent illustration of the latter:

Mrs. M., age 36, married 14 years. Had an attack of pelvic inflammation when a young woman. Had one miscarriage at four months, thirteen years ago, which was her only pregnancy until October, 1903, when the cessation of menstruation indicated the beginning of this pregnancy. Nothing unusual was observed in its progress until about the end of the third month, when she was seized with severe pains in the abdomen, and fainted three times. Dr. McHugh, who was called, reports a large quantity of albumin in the urine at this time.

She was confined to her bed for several days after this attack, but after recovering sufficiently to be up she had constant pain in the pubic region, which was worse on the right side and radiated down the thigh of that side (Roberts). These pains were all increased for two or three days every 28 days thereafter.

Foetal movements were felt at about the last of the fourth or beginning of the fifth month, which were very marked and somewhat painful (characteristic of liga-

mentous pregnancy). Her breasts increased in size and milk was noticed, about the usual morning nausea was observed and the abdomen increased progressively in size until about one week before the expected date of confinement (July 28, 1904). She was taken with vomiting, pain, fever, faintness, etc., and added to these symptoms were those of enteritis, as reported by her attending physician. She was confined to her bed with this attack for several weeks, after which she became quite well, going about as usual and doing her housework. The abdomen decreased gradually in size and the movements of the child became weaker and weaker and gradually ceased entirely. Four weeks after this attack her menses appeared and with the flow there appeared, from time to time, large shreds of membrane—the gradual shedding of the decidua. The breasts decreased in size and the milk disappeared.

The patient continued to feel well for nearly nine months after this severe attack, when her menses became continuous and symptoms of enteric irritation developed, accompanied by a constant rise of temperature of from one to two degrees.

This was the condition of the patient when first seen by the writer, March 8th, 1905. The abdomen was distended by a firm tumor of about the size of a seven month's pregnancy. The mass was slightly movable and hardest at its right lower aspect. The cervix uteri could be felt high up under the pubic arch, at the patient's left, but the fundus could not be satisfactorily palpated. A diagnosis of late extra-uterine pregnancy with death of foetus was made, and operation advised.

Operation at Harper Hospital March

18, 1905. Temperature 102.5°. Tumor tympanitic, while it had been dull on percussion before this date. On opening the abdomen the tumor was found covered by the adherent omentum, which was torn through and pushed away only far enough to leave sufficient field for packing a protecting wall of gauze around the intended incision. After completely encircling the bared portion of the tumor, which much resembled a pregnant uterus, with large venous sinuses coursing over its surface, it was incised in the median line. Considerable thick, greenish, foul-smelling pus was blown, by the imprisoned gas, through the opening, which was rapidly enlarged sufficiently to allow of the extraction of the child, which was covered with pus and debris, closely doubled into a compact mass with the head lying in the right side of the pelvic cavity. On removal the cord was found to have been absorbed, and the placenta, a small round ball, was detached and loose in the cavity. The site of attachment of the placenta was plainly apparent—a rough surface about two inches in diameter, covered with grayish, sloughing shreds of tissue, and situated at the uppermost part of the cavity. The sacrum could be seen at the back of the cavity and its surface felt rough and apparently bare of peritoneum. The shreds of grayish, sloughing tissue which appeared on all parts of the inner aspect of the sac, were stripped away where loose and left where they were found to be closely adherent, as it was found removal of the latter caused hemorrhage. After the ligation of the only bleeding point—a large vein at the lower end of the sac incision, a counter-opening was made through the posterior cul-de-sac in the vagina, and a large rubber drainage tube

drawn through it. The cavity was then very thoroughly flushed and scrubbed with a saturated solution of acetozone, the packing around the sac opening removed and replaced by three Miculitz drains, placed between this pseudo uterine wall and the abdominal wall, two rubber tubes placed in the sac, one reaching the upper and one the lower part of the cavity, and both brought out at the lower end of the abdominal incision beside the tube which passed through into the vagina. After partially filling the cavity with strips of iodoform gauze, which were brought out beside the tubes, the upper end of the abdominal incision was closed with four silkworm gut sutures, and the usual dressing applied. A large rubber catheter was also placed through the anus into the rectum, as a rectal communication with the sac was apparent from the previous symptoms, though not demonstrated at the operation.

On examination of the child the bones of the skull were found protruding through the scalp and one foot had sloughed off. This foot was not found. The recovery of the patient was ideal in every respect. The gauze in the sac was removed on the third day and the Miculitz drains on the fifth. The large drainage tubes permitted of free flushing of the cavity, which was done frequently—about every six hours for the first few days—bringing away large quantities of sloughing debris. The communication between rectum, vagina and sac were very free, the fluid using passing either way. Two of the drainage tubes were removed by the fourteenth day, leaving only the long one passing through sac and vagina, which did service until the end of the sixth week, when it was removed, as no more debris could be

washed through it and very little pus was in evidence. The treatment of the rectum was the same as for the sac—thorough frequent flushing—for two weeks, after which constipation was encouraged, soon after which the evidences of communication became less and less, so that when discharged from the hospital, April

20th, 1905, the fistula had apparently healed. This, however, had not become very firm, as the patient, contrary to explicit instructions, took a cathartic a few days after going home, and reported a reopening of the abdominal sinus and passage of gas through it.

(Nov. 2, 1905, patient well and fistula closed for four months.)

INTESTINAL ANTISEPSIS—REPORT ON A SERIES OF EXPERIMENTS ON ANIMALS.*

S. EDWARD SANDERSON,
Detroit.

Time does not permit me in this paper to go into a comprehensive discussion of the subject. The purposes of this paper are to report a series of experiments carried on by the author in an endeavor to gain some positive data. What do we mean by intestinal antiseptics? What are we striving to do when we employ them, or what do we hope to accomplish? Can we produce an amicrobic condition of the alimentary tract? Positive knowledge on this subject is scarce and our practice depends largely on empiricism. What positive knowledge can we expect to gain in this field, and how shall we go about the task of obtaining it?

In 1904 I began a series of experiments. The substances to be tested were such standard drugs as salol, resorcin, the sulphocarbolates, petrolatum, guaiacol, etc., and the newer drugs. The claims made of the value of benzoyl-acetyl-peroxide (Acetozone), as set forth by Novy and Freer, in the publication of their researches, seemed to place it as the most potent drug in the field. For that reason I endeavored to give it the first test.

The following outlines the series of tests:

CONTROL.

I. The determination of the toxicity or innocuousness of the drug employed.

II. Determining the prevalence of bacteria in the intestine where no drug had been used.

TESTS.

I. Having given an animal certain doses of medicine for several days, cultures were taken from many points in its intestinal canal. Under surgical methods the openings made in the intestine were closed and the animal allowed to live.

II. The same animal was later treated with a different drug, cultures again being taken.

III. The same animal was later allowed to go untreated, cultures then being taken.

The culture media used were slant agar and bouillon. The culture work was done in the Detroit Clinical Laboratory. The tubes were left in the incubator until a full growth appeared or until we were certain no growth would appear. Records were made at the end of 24 hours, 48 hours and 72 hours. In the records

*Read at the annual meeting of the Michigan State Medical Society at Petoskey, 1905.

we endeavored to note the amount of growth, full memoranda being kept of each culture, +5 designating full growth, +4 a lesser amount of growth, +3 still less, etc., and +1 only one or two colonies appearing. No attempt at identification of the bacteria was made.

CONTROL.

I. An ideal intestinal antiseptic should destroy or inhibit the growth of intestinal bacteria, but leave the animal unharmed, both locally and generally. To determine how far this requirement would apply to benzoyl-acetyl-peroxide (Acetozone), the tests were made in various ways:

1. The full strength fully hydrolized solution* was injected subcutaneously into rabbits many times, with no perceptible ill effect.

2. The fully hydrolized solution was injected into the peritoneal cavity of rabbits many times, without perceptible ill effects.

3. Under an anesthetic, the peritoneal cavity was opened by an incision, and the hydrolized solution poured freely therein, with no perceptible ill effect.

4. The heart of a rabbit was exposed by incision, and the hydrolized solution was injected into the cavity of the organ; the heart was replaced, the wound closed, and the animal recovered with no perceptible ill effect. This was done in two animals, only, both living until finally killed. The only evidences observed post-mortem were pericardial adhesions, due doubtless to the surgical procedure.

5. The hydrolized solution was in-

jected into the femoral vein of a dog with no perceptible ill effect.

6. The eye of a rabbit was freely washed with the hydrolized solution, with no ill effect.

7. Dogs were given large doses of the powder, in capsules (30, 50, 60 grains at one time) with no evidence of irritation of the stomach, at the time or later; and no evidence of irritation of the mucous membrane of the stomach or intestine was found, either at operation or post-mortem, in any case.

8. The *fresh* solution was given to dogs, per catheter many times, using one or two pints, with no evidence of irritation.

9. The *hydrolized* solution was given to dogs per catheter many times, using one or two pints, with no evidence of irritation.

10. The intestine of the dog having been opened, and the mucous membrane exposed under proper surgical methods, the powder was dusted freely upon the mucous membrane with no other effect noticeable than the stimulation of mucous secretion.

11. The mucous membrane of the intestine having been exposed, the solution freely poured upon the mucous membrane or into the lumen of the intestine seemed to have no other effect than to stimulate activity of the mucous glands.

12. The hydrolized solution seemed to have little or no effect upon a delicate membrane or cut surface, while the powder freely dusted upon the peritoneum or a cut surface seemed to have a decidedly destructive cauterizing effect.

II. For determining the comparative number of bacteria present in the intestine in untreated conditions when no drug had been employed, ten dogs were used.

*To prepare the full strength fully hydrolized solution 15 grs. was added to one quart of water. This was allowed to stand 24 or 48 hours. According to Novy & Freer's report spoken of above, this equals bichloride of mercury 1:1000 solution in bactericidal strength. In all cases included in this paper this was used unless otherwise stated.

(For detail see appended table, experiments 18, 20, 21, 48, 50, 58, 59, 60, 61, 62.) Cultures were taken from the lumen of the intestine of the living animal in all available states. These include the conditions found when the animal is under full feeding or reduced to starvation or by operation. No test was made in what was considered a diseased condition. The method of procedure in these cases was to prepare the dog for abdominal operation, under an anesthetic and with aseptic precautions. The intestine being exposed, a small incision was made, and a platinum loop was inserted into the lumen of the gut, from which the inoculation was made into the culture medium. The platinum loop being sterilized was again passed into the lumen of the gut and a second culture made, one usually being in agar and one in bouillon. In some cases four cultures were made in this way from the same point. When possible a larger incision was made, freely exposing the mucous membrane. The culture was taken from the contents of the bowel, such as mucus or partly digested food, or from the bare mucous membrane. We endeavored to distinguish between the bowel contents and the mucous membrane, in order to arrive at a better understanding when possible, of the location of the bacteria present.

Of the ten dogs in this series of tests several had been under full diet; the stomach in some of these cases being found full of food and indigestible matter such as hair, straw, excelsior; the intestines containing considerable matter, fluid or of a creamy consistency, fecal matter being present in the lower portions of the intestinal canal. Other animals had gone several days without food, reducing the amount of matter in the intes-

tinal canal to mucus, indigestible material and parasites (tape-worm). Fecal matter was often present in the lower bowel. Several had been subjected to previous operations, such as intestinal anastomosis, splenectomy, etc. In every case the intestinal contents were reduced to a minimum. Certain of these animals suffered from intestinal obstruction of greater or less degree; the portion below the obstruction being almost absolutely empty of matter, that above being distended. Cultures were taken from all points of the intestinal canal, stomach, duodenum, small intestine, appendix, colon. Almost without exception an abundant growth appeared in all cultures within 24 hours, whether taken from the mucous membrane or from the intestinal contents. The logical deduction would, therefore, be that bacteria are practically universally present in abundant numbers in the normal intestinal canal. We were not aware that any of the dogs from which cultures were taken for this purpose were suffering from an intestinal disease.

TESTS.

Two series of tests were made with benzoyl-acetyl-peroxide given internally: (a) In powder form, (b) in solution. In both series cultures were taken from all parts of the intestinal canal in the living animal, under an anesthetic, with aseptic precautions, as in the control series.

(a) Powder given in capsules. Eight dogs were used. (For details see appended table.)

Experiment 31—Dog No. 11. Test insufficient.

Experiment 32—Dog No. 12. Test insufficient.

Experiment 38—Dog No. 11. A total of 200 grains was given in divided doses,

extending over a period of ten days. Food was withheld for four days. The result showed a practically sterile bowel.

Experiment 47—Dog No. 23. A total of 200 grains was given in divided doses, extending over a period of six days. Food was withheld for four days. The result was a practically sterile bowel.

Experiment 65—Dog No. 29. A total of 80 grains was given in divided doses, extending over a period of six days. Food was given all the time. The result was a marked decrease in the number of bacteria.

Experiment 66—Dog No. 28. A total of 130 grains was given in divided doses, extending over a period of eight days. Food was given all the time. The result was a very slight effect.

Experiment 70—Dog No. 27. A total of 70 grains was given in divided doses, extending over a period of seven days. Food was withheld for four days. The result showed no decrease in bacteria.

Experiment 74. Dog No. 28. A total of 300 grains was given in divided doses, extending over a period of ten days. Food was withheld for six or eight days. The result showed no decrease in the number of bacteria.

Of the eight dogs used, two gave a practically sterile small intestine; in one there was a marked decrease in the number of bacteria; in one only a slight decrease and in two there was no evident lessening of the bacteria whatever.

(b) Solution. Six dogs were used.

Solution passed into the stomach through a catheter. Cultures taken as in preceding series. (For details see appended table.)

Experiment 44. Dog No. 22. Was given a total of three litres in divided doses, extending over a period of three

days. Food was given all the time. The result showed an almost sterile bowel.

Experiment 53—Dog No. 26. Was given a total of nine litres in divided doses, extending over a period of nine days. Food was withheld for two days. The result showed no decrease in the number of bacteria.

Experiment 54—Dog No. 23. (Used before. See above experiments 47, 50.) A total of seven litres was given in divided doses, extending over a period of seven days. Food was withheld for one day. The result showed no decrease in the number of bacteria.

Experiment 63—Dog No. 27. (Used before. See above experiment 70.) A total of three litres was given in divided doses, extending over a period of five days. Food was withheld for one day. The result showed a marked decrease in the number of bacteria.

Experiment 71—Dog No. 35. A total of four litres was given in divided doses, extending over a period of five days. Food was withheld for four days. The result showed a marked decrease in the number of bacteria.

Experiment 72—Dog No. 36. A total of five litres was given in divided doses, extending over a period of six days. Food was withheld for six days. The result showed a marked decrease in the number of bacteria.

Of the six dogs used, one gave an almost sterile bowel, three showed marked decrease in bacteria, two showed no evident lessening of the bacteria present.

The incompleteness of this work is evident to no one more than to myself. It is little better than a beginning, teaching a few lessons and pointing the way to many avenues for study and investigation. I had hoped by this time to be able

to report my tests with other drugs, but the work necessary to test one drug to completeness is so tremendous that I have but begun on other drugs.

I believe it possible to markedly inhibit intestinal bacteria. In my series of tests I obtained this result several times. (See Experiments 38, 47, 65, 44, 71, 72.) Why results were not uniform opens up problems which are too comprehensive to be treated here, and which are not fully understood. The drug may be the same, the food the same, and other gross conditions may be alike, yet the identity of the bacteria present may vary. Some may be more resistant than others, no attempt at identification was made. Physiologic conditions may vary: conditions we but little understand. Fecal matter present in the lower bowel, even where food is withheld, seemed to favor the presence of bacteria. A yellow fluid in the intestine seemed to presage bacteria present in numbers. A bowel filled with food prod-

ucts is less easily sterilized than one empty.

It is a safe supposition to make that bacteria are present in all accessible portions of the intestinal canal, in the food stream, upon the surface of the mucous membrane and deep between the villi. I have been unable to find any literature bearing upon the findings of other observers. My own observations lead me to believe the greatest number exists in the food products (as these form the best culture media); and upon the surface of the mucous membrane, few being deep between the villi. In my whole series of tests the untreated bare mucous membrane gave abundant growths; the treated membrane sometimes gave no growths, while the food products in the same animal gave abundant growth. The largest number of bacteria seemed to be present in the lower bowel.

In presenting this paper the author hopes to be able at a later date to report further work in this field.

APPENDED TABLE.
Control.

	Culture		Location.	Growth.		
	No.	Medium.		Hours.	24	48	72
Experiment 18.						
Dog No. 10—						
No preparation. Male fox-terrier in good condition.	1	A	Stom.		...	
	2	A	Small Int.		+1	
	3	A	Appen.		+5	
Experiment 20.						
Dog No. 11—						
No preparation. Male fox-terrier in good condition.	4	A	Stom.		+3	
	5	A	Up. small int.		...	
	6	A	Lower small int.		+3	
	7	A	Appen.		+5	
Experiment 21.						
Dog No. 12—						
No preparation. Female fox-terrier in good condition.	8	A	Small int.		+5	
	9	A	Appen.		+5	
Experiment 48.						
Dog No. 24—						
No food for 4 days. Female	103	A	Muc. duod.	...	+1	+1
cur, small, in good condition.	104	B	Muc. duod.	+5		
	105	A	Muc. stom.	+1	+2	+2

EXPERIMENT 48—(Continued)

	No.	Culture. Medium.	Location.	Growth. Hours.		
				24	48	72
	106	B	Muc. stom.	+3	+5	
	107	A	Muc. small int.	+4	+5	
	108	B	Muc. small int.	+5		
	109	A	Muc. 24 in. lower.	+5		
	110	B	Muc. 24 in. lower.	+5		
Experiment 50.						
Dog No. 23—						
Intestine being sterile from	119	B	Small int.	...	...	...
drug. Allowed to eat and	120	B	Small int.	...	...	...
given food for 9 days	121	B	Small int.	+5		
(See Exp. 47.)	122	B	Small int.	+4		
	123	B	Small int.	...	...	...
	124	B	Small int.	+4		
Experiment 58.						
Dog No. 30—						
Bulldog, starved fol. operation	166	B	Duod.	+5		
for intestinal anastomosis 10	167	A	Duod.	+5		
days before	168	B	20 in. lower	+5		
	169	A	20 in. lower	+5		
	170	B	Near appen.	+5		
	171	A	Near appen.	+5		
Experiment 59.						
Dog No. 31—						
Old, fat, pug, intestinal ob-	172	B	Duod.	+5		
struction at point of anasto-	173	A	Duod.	+5		
mosis done 10 days before.	174	B	20 in. lower ab. obst'n.	+5		
	175	A	20 in. lower ab. obst'n.	+5		
	176	B	Bel. obst'n, bowel empty.	+5		
	177	B	Bel. obst'n, bowel empty.	+5		
	178	B	Appen.	+5		
Experiment 60.						
Dog No. 32—						
Female fox-terrier in reduced	179	A	Duod.	+5		
condition following opera-	180	B	Duod.	+5		
tion, appendectomy 10 days	181	A	20 in. lower.	+5		
before. Yellow fluid in in-	182	B	20 in. lower.	+5		
testine.	183	A	20 in. still lower.	+5		
	184	B	20 in. still lower.	+5		
	185	A	4 in. above ap.	+5		
	186	B	4 in. above ap.	+5		
Experiment 61.						
Dog No. 33—						
Large male setter, reduced	187	A	Duod.	+5		
following operation of	188	B	Duod.	+5		
splenectomy 10 days before,	189	A	20 in. lower.	+5		
bowel empty.	190	B	20 in. lower.	+5		
	191	A	20 in. still lower.	+5		
	192	B	20 in. still lower.	+5		
	193	A	4 in. above ap.	+5		
	194	B	4 in. above ap.	+5		
Experiment 62.						
Dog No. 34—						
Female fox-terrier in reduced	195	A	Duod.	+5		
condition following opera-	196	B	Duod.	+5		
tion 10 days previous.	197	A	20 in. lower.	+5		
	198	B	20 in. lower.	+5		
	199	A	Just ab. ap.	+5		
	200	B	Just ab. ap.	+5		

APPENDED TABLE.
Tests.

	No.	Culture. Medium.	Location.	Growth. Hours.		
				24	48	72
Experiment 31.						
Dog No. 11—						
Test insufficient.						
Experiment 32.						
Dog No. 12—						
Test insufficient.						
Experiment 38—						
Dog No. 11—						
A total of 200 grains was given	55	A	Stom.	+2	+2	+2
in divided doses, extending	56	B	Stom.	+2	+4	+4
over a period of ten days.	57	A	Duod.	+1	+1	+1
	58	B	Duod.	+5	+5	+5
	59	A	8 in. bel. No. 57.	...	...	...
	60	B	8 in. bel. No. 57.	...	...	...
	61	A	12 in. lower than No. 59.	...	...	...
	62	B	12 in. lower than No. 59.	...	...	...
	63	A	8 in. lower than No. 61.	...	...	...
	64	B	8 in. lower than No. 61.	...	...	...
	65	A	8 in. lower than No. 63.	...	...	...
	66	B	8 in. lower than No. 63.	...	...	...
	67	A	8 in. lower than No. 65.	...	+2	+2
	68	B	8 in. lower than No. 65	+5	+5	+5
	69	A	Sigmoid.	...	...	...
	70	B	Sigmoid.	...	...	...
Experiment 47.						
Dog No. 23 (See Exp. 50, 54)—						
A total of 200 grains was	91	A	Stom. muc.	...	...	...
given in divided doses, ex-	92	B	Stom. muc.	...	...	...
tending over a period of six	93	A	Duod. muc.	...	...	...
days. Food was withheld	94	B	Duod. muc.	...	...	...
for four days.	95	A	16 in. lower than No. 93.	...	...	...
	96	B	16 in. lower than No. 93.	...	...	...
	97	A	20 in. lower than No. 95.	...	...	...
	98	B	20 in. lower than No. 97.	...	+2	+2
	99	A	20 in. lower than No. 97.	...	...	...
	100	B				
	101	A	Just above ap.	+3	+5	
	102	B	Just above ap.	+5		
Experiment 65.						
Dog No. 29—						
A total of 80 grains was given	221	A	5 in. below duod.	+1	+1	+1
in divided doses, extending	222	B	5 in. below duod.	...	...	...
over a period of six days.	223	A	15 in. lower.	...	...	...
Food was given all the time.	224	B	15 in. lower.	+4	+5	+5
	225	A	20 in. lower.	...	...	...
	226	B	20 in. lower.	...	...	...
	227	A	10 in. lower.	+1	+2	+2
	228	B	10 in. lower.	+5		
Experiment 66.						
Dog No. 28—						
A total of 130 grains was given	229	A	4 in. below duod. muc.	+5		
in divided doses, extending	230	B	4 in. below duod. muc.	+5		
over a period of eight days.	231	A	8 in. bel. No. 229 muc.	+5		
Food was given all the time.	232	B	8 in. bel. No. 229 muc.	+5		
	233	A	8 in. bel. No. 231 muc.	+5		
	234	B	8 in. bel. No. 231 muc.	+5		
	235	A	8 in. bel. No. 233 mem.	+5		
	236	B	8 in. bel. No. 233 mem.	+5		

EXPERIMENT 63—(Continued)

No.	Culture. Medium.	Location.	Growth. Hours.		
			24	48	72
237	A	8 in. bel. No. 235 Wall.	...		
238	B	8 in. bel. No. 235 Wall.	...		
239	A	8 in. bel. No. 237 Cont.	+5		
240	B	8 in. bel. No. 237 Cont.	+5		
241	A	12 in. bel. No. 239, 10 in. ab. ap.	+5		
242	B	12 in. bel. No. 239, 10 in. ab. ap.	+5		

Experiment 70 (See Exp. 63.)

Dog No. 27—

A total of 70 grains was given	247	A	7 in. bel. duod. Cont.	+5	
in divided doses, extending	248	B	7 in. bel. duod. Cont.	+5	
over a period of seven days.	249	A	12 in. bel. No. 247.	+5	
Food was withheld for four	250	B	12 in. bel. No. 247.	+5	
days.	251	A	20 in. lower.	+5	
	252	B	20 in. lower.	+5	
	253	A	Just above append.	+5	
	254	B	Just above append.	+5	

Experiment 74.

Dog No. 28—

A total of 300 grains was given	277	A	6 in. bel. duod. muc. mem.	+5	
in divided doses, extending	278	B	6 in. bel. duod. muc. mem.	+5	
over a period of ten days.	279	A	12 in. bel. 277 muc. mem.	+5	
Food was withheld for six	280	B	12 in. bel. 277 muc. mem.	+5	
or eight days. The large in-	281	A	12 in. bel. 277 Cont.	+5	
testine was full of hard fecal	282	B	12 in. bel. 277 Cont.	+5	
matter.	283	A	12 in. bel. 279, muc. mem.	+5	
	284	B	12 in. bel. 279, muc. mem.	+5	
	285	A	12 in. bel. 279, Cont.	+5	
	286	B	12 in. bel. 279, Cont.	+5	
	287	A	12 in. ab. app. muc. mem.	+5	
	288	B	12 in. ab. app. muc. mem.	+5	
	289	A	12 in. above app. cont.	+5	
	290	B	12 in. above app. cont.	+5	
	291	A	Append. cont.	+5	
	292	B	Append. cont.	+5	
	293	A	4 in. above append. muc. mem.	+5	
	294	B	4 in. above append. muc. mem.	+5	
	295	A	Duod. bile stained wall	+5	
	296	B	Duod. bile stained wall	+5	
	297	A	Stom., frothy muc.	+5	
	298	B	Stom., frothy muc.	+5	
	299	A	Gall from gall bladder	+2	+5
	300	B	Gall from gall bladder	+5	

Experiment 44.

Dog No. 22—

Was given a total of 3 litres in	71	A	Duod. yellow muc.	...		
divided doses, extending	72	A	8 in. bel. No. 71 yel. muc.	+1	+5	+5
over a period of three days.	73	A	8 in. bel. No. 72 yel. muc.	...		
Food was given all the time.	74	A	8 in. bel. No. 73 yel. muc.	...		
Accidentally drowned on the	75	A	8 in. bel. No. 74 yel. muc.	...	+1	+1
fourth morning by passing	76	A	8 in. bel. No. 75 yel. muc.	+2	+5	
the catheter into the trachea.	77	A	8 in. bel. No. 76 yel. muc.	+1	+1	+1
	78	A	8 in. bel. No. 77 yel. muc.	...	+1	+1
	79	A	8 in. bel. No. 78 yel. muc.	+1	+1	+1
	80	A	Rectum feces	+5		

	Culture, No.	Medium.	Location.	Growth, Hours.		
				24	48	72
Experiment 53.						
Dog No. 26—						
Was given a total of nine litres	131	A	Stom.	+4		
in divided doses, extending	132	B	Stom.	+5		
over a period of nine days.	133	A	Stom.	+4		
Food was withheld for two	134	B	Stom.	+5		
days.	135	A	Duod.	+4		
	136	B	Duod.	+5		
	137	A	4 in. bel. No. 135 muc. mem.	+4		
	138	B	4 in. bel. No. 135 muc. mem.	+5		
	139	A	4 in. bel. No. 137	+4		
	140	B	4 in. bel. No. 137	+5		
	141	A	4 in. bel. No. 137	+4		
	142	B	4 in. bel. No. 137	+5		
	143	A	4 in. bel. No. 139	+3		
	144	B	4 in. bel. No. 139	+5		
	145	A	4 in. bel. No. 143	+4		
	146	B	4 in. bel. No. 143	+5		
	147	A	4 in. bel. No. 145	+4		
	148	B	4 in. bel. No. 145	+5		
	149	A	4 in. bel. No. 147	+4		
	150	B	4 in. bel. No. 147	+5		
	151	A	8 in. bel. No. 149	+4		
	152	B				
	153	A	12 in. bel. No. 151	+5		
	154	B	12 in. bel. No. 151	+5		
	155	A	12 in. bel. No. 151 wall	+3		
	156	B	12 in. bel. No. 151 wall	+5		
	157	A	Near append.	+5		
	158	B	Near append.	+5		
	159	A	Append.	+5		
	160	B	Append.	+5		
Experiment 54.						
Dog No. 23 (Used before. See Exp. 47, 50.)						
A total of seven litres was	201	A	Duod. yel. muc.	+5		
given in divided doses, ex-	202	B	Duod. yel. muc.	+5		
tending over a period of	203	A	20 in. bel. No. 201	+5		
seven days. Food was with-	204	B	20 in. bel. No. 201	+5		
held for one day. Accident-	205	A	12 in. bel. No. 203 yel. muc.	+5		
ally drowned by passing the	206	B	12 in. bel. No. 203 yel. muc.	+5		
catheter into the trachea.	207	A	Near append.	+5		
	208	B	Near append.	+5		
	209	A	Append. feces	+5		
	210	B	Append. feces	+5		
Experiment 63.						
Dog No. 27. (See Exp. 70.)						
A total of three litres was	211	A	3 in. bel. Duod.	...		
given in divided doses, ex-	212	B	3 in. bel. Duod.	...		
tending over a period of five	213	A	20 in. bel. No. 211	...		
days. Food was withheld	214	B	20 in. bel. No. 211	+3	+4	+4
for one day.	215	A	30 in. above append.	+2	+3	+3
	216	B	30 in. above append.	+5		
	217	A	20 in. above append.	...		
	218	B	20 in. above append.	+4	+5	+5
	219	A	8 in. above append.	+4	+5	+5
	220	B	8 in. above append.	+5		
Experiment 71.						
Dog No. 35—						
A total of four litres was	255	A	4 in. bel. duod. muc. mem.	+1	+1	+1
given in divided doses, ex-	256	B	Tube broke.			
tending over a period of five	257	A	12 in. bel. No. 255 muc.mem.	+1	+1	+2
days. Food was withheld	258	B	12 in. bel. No. 255 muc.mem.	...		
for four days.	259	A	12 in. bel. No. 257 int. fluid	...		

EXPERIMENT 71—(Continued)

No.	Culture. Medium.	Location.	Growth. Hours.		
			24	48	72
260	B	12 in. bel. No. 257 int. fluid ...			
261	A	20 in. bel. No. 259 muc. mem....	+1		+2
262	B	20 in. bel. No. 259 muc. mem....	+3	+4	+5
263	A	20 in. bel. No. 259 cont.	+5		
264	B	20 in. bel. No. 259 cont.	+5	+4	+5
265	A	4 in. bel. No. 261 muc. mem....	+1	+1	
266	B	4 in. bel. No. 261 muc. mem....	+2	+2	+2
267	A	4 in. bel. No. 261 cont.	+4	+4	+5
268	B	4 in. bel. No. 261 cont.	+3	+4	+5

Experiment 72.

Dog No. 36—

A total of five litres of freshly prepared was given in divided doses, extending over a period of six days. Food was withheld for six days.	269	A	4 in. bel. duod. muc. mem. ...	+1	+1
	270	B	4 in. bel. duod. muc. mem. ...	+2	+3
	271	A	12 in. bel. No. 269 muc. mem....		
	272	B	12 in. bel. No. 269 muc. mem....	+1	+3
	273	A	12 in. bel. No. 271 cont.	+4	+5
	274	B	12 in. bel. No. 271 cont.	+1	+2
	275	A	20 in. from append.	+4	+5
	276	B	20 in. from append.	+4	+5

Note—Abbreviations:

A.	=Agar.
B.	=Bouillon.
Stom.	=Stomach.
Duod.	=Duodenum.
Int.	=Intestine.
Ap. or Append.	=Appendix.
Cont.	=Bowel contents.
Wall.	=Bowel wall.
Muc.	=Mucus.
Mem.	=Membrane.
Yel.	=Yellow.
Ab.	=Above.
Bel.	=Below.

The sign (...) signifies no growth.
The sign (+) signifies growth, the numeral designating the comparative amount.

THE IMPORTANCE OF RECTAL EXPLORATION IN CHILDREN.*

LOUISE ROSENTHAL-THOMPSON,
Traverse City.

The great importance of a rectal examination aided by bi-manual palpation in the diagnosing of obscure diseases occurring in childhood was first impressed upon me by Dr. Dillon Brown, of New York, and I have learned its value in clearing up obscure cases and bringing relief where without this procedure my diagnosis would have remained in doubt and my treatment empiric.

Rectal examination as an aid in diagnosing abdominal disease is naturally of greatest importance in young children, as the rectum of the young is nearly straight, the sacrum but slightly concave and the sphincter ani feeble, and its self-control but gradually developed, thus making it possible to explore a considerable area of the abdominal cavity outside the pelvis; this of course depends upon the size of the child, the length of the examining finger and whether or not an anæsthetic is employed. In Carpenter's method of examination "the pa-

*Read before the Michigan State Medical Society at its annual meeting at Petoskey, 1903.

tient's legs are well drawn up so that the thighs are flexed upon the abdomen, and with the pelvis raised upon a cushion, the left hand of the examiner on the abdomen, and the right index finger in the rectum, the right side of the abdominal cavity, and by reversing the hands, the left side up to the level of the umbilicus and sometimes a little beyond this level can be manipulated with ease between the two hands, and the condition of the intestines as well as the glands apart from any abnormalities found within the pelvis determined."

MOVABLE KIDNEY IN CHILDREN.

This condition is dismissed in our textbooks on diseases of children with but a single line, "as one of the rarest abnormal conditions in early life." But Comby reports eighteen cases personally examined. Of these cases sixteen were girls, and in fourteen of the cases the mobility was associated with dyspepsia and dilatation of the stomach. In nearly every case the affection was latent and in two it had been mistaken for chronic appendicitis. Twice it had been recognized and treated. Gutterbock, Ewald and others believe all cases to be of congenital origin. Dr. C. D. Aaron, in answer to a letter of inquiry, answers: There is no doubt in my mind but that movable kidney is congenital. I have patients as young as six years on whom I have been compelled to put on an abdominal support. Dr. Mayo, in response to a letter, says: "We have seen a number of cases of movable kidney in children. Nearly all of these were in females, and most of them we thought were congenital." Drs. Mayo have not operated on any of these cases, "as in no one were we able to show the complaint was caused by the kidney that was movable."

Personally I have met with two cases; both had been bottle babies with enormously distended abdomens, which they still retained at the age of 2 and 3 years respectively. In these cases without a rectal examination under an anæsthetic it would have been impossible to have felt below those wind distended abdominal walls and grasped that elusive tumor. As dilatation of the stomach is accompanied in some cases with vague nervous symptoms and muscular weakness, as well as movable kidney, it is difficult to say which of the relaxed or displaced organs is most to blame for the symptoms.

Frequently the dilated stomach fills the mind and eye of the physician to the practical exclusion of the other and equally important condition and even of the underlying cause and the dilation is treated as if it were the cause instead of a symptom.

SARCOMA OF THE KIDNEY. ..

is a comparatively common occurrence in childhood; the growth is so rapid that it may be mistaken for enlarged liver on the right or an enlarged spleen on the left side. Little reliance can be placed on an urinary analysis. First, the difficulty of getting a specimen from a little child; second, the normal kidney secretes normal urine; and, third, the ureter of the sarcomatous kidney may be involved in the destructive changes, and no urine from the diseased kidney enters the bladder. Here again the rectal and abdominal examination might be of value, enabling one to trace the growth back towards its attachments. Perinephritis is very frequently mistaken for hip joint disease. Here a rectal examination with palpation might elicit pain and tenderness in the ilio-costal space before the abscess

is large enough to be appreciable by percussion.

Renal calculi occur frequently in male children before the fifteenth year. In calculus in the ureter when the stone is below the brim of the pelvis the characteristic tender point on abdominal palpation which often indicates the point of impaction of the calculus higher up the ureter is absent. Rectal examination will often show the location of the calculus.

Prolapsus ani is so common in children that Prof. Henock, of Berlin, calls it a specialty of childhood and advises in all cases occurring in boys past the second dentition to examine for stone and reports cases where the stone was so deeply imbedded in the bladder walls as to elude the beak of the examining sound, and that by a rectal examination, aided by palpation, a stone was discovered.

TUBERCULAR PERITONITIS.

The diagnosis between tubercular peritonitis and chronic intestinal catarrh with distended bowels, rigidity of abdominal walls, emaciation and fever, especially if ascites is absent, is one beset with difficulties, not only to the beginner, but to the experienced practitioner, and many a learned physician has met his Waterloo bit of humanity with wind distended in a little emaciated, struggling, wailing bowels.

It is almost impossible in many cases to say there is an absence of peritonitis until a combined rectal and abdominal examination has been made. "When one feels between the examining fingers an appreciable amount of material other than the abdominal walls and tumors we may be sure we feel the peritoneal coat of the intestines, thickened with lymph, but if we feel the fingers separated by the abdominal walls alone we may dismiss

the thought of peritonitis, however much the external appearance indicates it." We may find fecal lumps that may suggest glandular impaction, or intestinal matting, but the fact that these masses may be broken or indented by the examining finger will prevent a mistake being made. The intestines affected with peritonitis tend to move en masse when pressed upon, but in health they yield to the finger.

August 27, 1904, I was called to see Mary L., aged 3 months. Mother and father healthy. No history or indication of tuberculosis or syphilis. History: Child remained same weight as at birth, constipated, vomiting, fretful and sleepless. Never slept more than fifteen minutes at a time, was bottle fed on diluted milk (no formula) every hour. Required constant attention of mother, nurses and aunt. Examination revealed emaciated child with distended abdomen, rigidity of abdominal walls and enlarged veins over abdomen. The child looked like a starved Cuban. Its length was twenty-one inches, abdominal measurement twenty inches, and weight three pounds ten ounces. Arm size of my index finger. Eczema from head to knees, excepting arms, over which the parchment-like skin was wrinkled, throat congested, tongue dry, red and glazed. No ascites. Prolapsus ani, no tenderness over abdomen. Pulse rapid, temperature 102; could find no evidence of disease of the lungs.

Child was placed in a bright, warm room, under the charge of a sensible nurse; child was placed in a padded basket with hot water bottles. Temperature of room 70. A wet nurse was secured, but child refused to nurse. Was placed on modified milk, modified to weight, not

age, fed every hour and a half. In fourteen days eczema was cured and child had gained six ounces, and was taking and retaining twenty-two ounces of food in twenty-four hours. Temperature gradually sank to normal. A little more cream was added to formula; child promptly had an attack of acute indigestion, from which she nearly died. September 25th temperature ranged from normal to 101; gained twelve ounces, taking twenty-four ounces of food per day; no vomiting and bowels regular. From September 25th to October 25th temperature ranged from subnormal to 101, took food regular, slept better, as long as one hour at a time. The last three days of the month temperature remained normal; child weighed four pounds and twelve ounces, a gain of one pound and two ounces. On October 26th the child was given an enema, small amount of gas expelled. A rectal examination with abdominal palpation was made and a considerable quantity of material other than the abdominal walls was felt between the fingers—no doubt the peritoneal coat of the intestines thickened with lymph; and over last lumbar vertebra two large mesenteric glands. During all this time there was no evidence of disease of the lungs, and no diarrhoea. After two months a diagnosis was at last reached—tubercular peritonitis. There is no doubt in my mind but that this was primary in the intestines. Temperature continued subnormal to 101. Child resting fairly well, and taking and retaining twenty-four ounces of food per day. November 3, 6 a. m., was called. Child was breathing rapidly. Temperature 105. Child died at 9 a. m. of pneumonia, the lung symptoms lasting only fourteen hours. Here was a case that it would have been

impossible to have arrived at a diagnosis without the combined examination.

In some cases of constipation the rectum will appear normal, but further examination will reveal the trouble to be at the sigmoid flexure. The colon is enormously dilated and thickened and there is evidence in the stools of catarrhal process. Nothnagle has found the cause to be due to an abnormal congenital formation of folds at the boundary between colon and sigmoid flexure, which are closed like a valve by the coming feces, while an instrument will pass the folds without hindrance.

Morris S., aged 4 years, suffered from obstinate constipation from birth. Drugs, suppositories and enemas proved of little avail. Child was flabby and rachitic. Abdomen distended and tender. Fever and bronchitis, anæmic and complexion waxy. Examination under an anæsthetic revealed the rectum normal, colon filled with hard, irregular masses that could be indented in some places with the examining finger. A diagnosis was made of Heschsprung's disease or congenital dilatation of the colon.

A systematic use of bougies extending over months brought about a cure. Child is now strong and healthy and has a daily evacuation.

INTUSSUSEPTION.

Three-fourths of the cases of intussusception occur in childhood and one-half are felt in the rectum. Carpenter tells us the sausage-like tumor of intussusception may be found as like as possible that found in tubercular peritonitis. When it attacks the omentum, which it not infrequently does, it often forms a sausage-like tumor, passing transversely across the abdomen above the level of the umbilicus, and just such a tumor may be

found in intussusception when the small bowel invaginates the large; further, there may be an absence of symptoms of obstruction.

In many well known diseases much valuable information can be gained by this method of examination. Pelvic abscess, rectal abscess, cysts, fissure, fistula, polypi, impaction of feces, impaled foreign bodies, the tumor of appendicitis, and last, but not least, constipation. How many little sufferers have been doped with all the remedies in and out of the pharmacopœa, with enemas and suppositories, cases accompanied with so much pain that the little sufferers scream in agony with each defecation, the contraction of the sphincter being so painful. Even a superficial examination will reveal a fissure at the junction of the skin and mucous membrane.

Inflammations of the tubes and ovaries are not uncommon in little girls who have contracted gonorrhea, which unfortunately is not uncommon in the neglected classes. Marx calls attention to the fact that salpingo-oöphoritis sometimes complicates vulvo-vaginitis in infants with symptoms similar to those found in adults. He supports this statement by referring to fifteen post-mortems of chil-

dren who had symptoms of this complication, and in five of them the fallopian tubes contained pus and the uterine attachments were sealed. There is no doubt in my mind that many cases of pelvic disease, whose origin is obscure, occurring in young girls at the age of puberty, may be traced to neglected vulvo-vaginitis in childhood, and a rectal examination, which is the only one permissible, would elucidate many cases and give the unfortunate patient the benefit of rational and scientific treatment.

The best diagnostic results are obtained in children under two years and under complete anæsthesia. The bowels should be thoroughly evacuated and washed out, and food withheld for at least ten hours. Under complete anæsthesia the examining finger gains $1\frac{1}{2}$ inches in length, so to speak, because the complete relaxation allows the fingers to press upon the surrounding tissues in such a way as to push up the buttocks and allow deeper penetration of the examining finger.

We must always use extreme care and gentleness so as not to injure the delicate tissues—and always bear in mind the great difference in size between the pelvis of adult and little child.

INFANT MORTALITY IN MICHIGAN AND DETROIT WITH AN INQUIRY CONCERNING A NORMAL INFANT MORTALITY RATE.*

HERBERT M. RICH,
Detroit.

Infant mortality is a not inaccurate measure of the civilization and good government of a country. It has been recently shown to have a definite relation

to the rise and spread of democracy among the common people. The highest infant mortality of the present in countries whose statistics are available occurs in Russia, Bavaria, Austria, and Italy, while Norway, England, Canada

*Read before the Michigan State Medical Society at its annual meeting at Petoskey, 1905.

and the United States show much better conditions. This is not difficult to understand when one remembers that the women of the first mentioned countries labor in the fields and may often be met hitched in front of a wagon with a donkey or a dog, or carrying brick and mortar up long ladders in the cities. Successful maternity and child-raising demand certain favorable conditions for the pregnant woman and that she may have time to give her child proper care after birth. As the working classes increase in intelligence and are surrounded by better conditions of living, we find them exempting their women from these unnatural conditions, and the story of their advancement is fairly well-told to the discerning reader by the decrease in their infant mortality.

The parallel does not fail to hold good in better governed states. An English writer has recently said that the birth and care of a child is the greatest object of civilization and that personal and national morality and success in the future are to be measured by that standard. "One may imagine all our statesmen, philanthropists and public men, our parties and our institutions gathered into one great hall and into this hall a huge spout which no one can stop, discharges every eight seconds a baby. Our success or failure with that never-ending stream of babies, is the measure of our civilization." It is evident that the statistics of infant mortality are of interest not only to the medical profession, but also to all students of social and political conditions.

In Michigan there is a curious discrepancy between the infant mortality in the state at large and the city of Detroit. In 1900 the death-rate for all ages per 1,000 inhabitants in the state was 13.4

and in the city, 14.14. The death-rate of infants under one year of age was in the state 121.3 and for the city 201.2. This shows that while the city compares very favorably with the state in general mortality, it furnishes far more than its share of the deaths of infants. We may even go further and say that Detroit not only exceeds the state at large greatly in its infant mortality, but that it also exceeds with one exception every city in the country equally large, omitting New Orleans and Baltimore which can hardly be compared justly with Detroit in this respect because of their large negro populations and great difference in climate. This relation to the other large cities is shown by the following table compiled from the last U. S. Census.

CITIES.

Infant mortality—1900.

1. New York	189.4
2. Chicago	146.6
3. Philadelphia	201.9
4. St. Louis	164.4
5. Boston	194.1
6. Buffalo	150.9
7. San Francisco	152.2
8. Cleveland	185.5
9. Cincinnati	174.3
10. Pittsburgh	180.5
11. Detroit	201.2
Baltimore and New Orleans omitted.)	

STATES.

Michigan	121.3
Vermont	122.1
New York	159.8
Massachusetts	177.8

CITIES.

Grand Rapids	146.1
Bay City	112.9
Kalamazoo	135.9
Battle Creek	89.4

	Infant mortality—1900	
Jackson	101.2	
Ann Arbor	103.0	
Milwaukee ,.....	190.2	
Toledo	157.2	
St. Paul	96.9	
	1890.	1900.
United States	205.8	165.4

In this table are first arranged the large cities of the country in the order of their size, with the infant mortality per 1,000 of those living of the same age. Further down are a few of the states whose figures are available, showing that the state of Michigan has the smallest infant mortality of any of the registration states. Finally I have added the rates of a few near-by cities that we may see what our neighbors are doing.

That the country as a whole is making progress along these lines is shown by the fact that the death-rate of infants decreased in the registration areas of the U. S. from 205.8 in 1890 to 165.4 in 1900, while between the ages of one and two, the rate fell from 84.9 in 1890 to 46.6 in 1900, by far the largest decrease for any of the periods recorded. In New York City in 1891 there were 18,224 deaths under five years of age with a population of this age of 188,703, a rate of 96.0. In 1896 the rate was 77.5 and in 1900 it was 67, the population then being 233,537 and the deaths 15,648. Thus, although the infant population had increased by over 44,000, the total number of infant deaths actually decreased by 2,000. This was not accomplished accidentally or without great and well directed effort. Many agencies contributed to this magnificent result. Holt attributes it to a "wider diffusion of knowledge in the matter of infant feeding and hygiene; the fact that a larger number of infants

than ever before are now sent into the country in summer; that all infants are looked after with greater care in the summer, many agencies being at work to improve their condition. Not least important of these is the improvement of the milk supply and the furnishing of pure milk gratis from different centers, together with the general adoption during hot weather of some form of milk sterilization—a practice now well nigh universal among the tenements. Antitoxin has reduced the number of deaths in older children."

In the city of Detroit, however, the rate of infant mortality has shown no consistent decrease, as will be seen by the following table of deaths for the last six years:

Year	Deaths under one year	No. deaths per 1000 of same age living	
1898	1091	167.7	} Including still-born
1899	1137	174.1	
1900	1149	175.6	
1901	1093	166.6	
1902	1205	182.3	
1903	1187	178.9	
1904	(Gen. mort. =15.11) 1043	156.5	

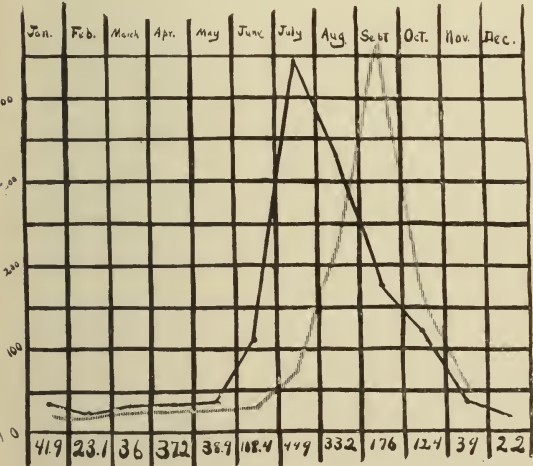
In 1900 the total number of deaths registered—excluding 106 deaths returned subsequently from November registration townships—in the state of Michigan was 33,778 of which 9,443 (28%) were under five years of age and 6,866 (20.3%) were under one year. In Detroit the whole number of deaths was 4,934 of which 1,610 (32%) were under five and 1,149 (23%) were under one. This means that the children of the state under one year of age, less than one-fortieth of the population, furnished over one-fifth of the total deaths in the state and nearly one-fourth of the total deaths in the city.

Inquiring a little closer into this high

mortality, we find that the monthly distribution of infant deaths in the city of Detroit for the three years—1898-1900—was as follows:

	Deaths Under One Year.	Deaths From Cholera Infantum
Jan.	71	3
Feb.	88	1
Mar.	76	3
Apr.	73	0
May	72	1
June	114	9
July	173	81
Aug.	138	32
Sept.	95	22
Oct.	76	34
Nov.	87	4
Dec.	61	0

Of 6,866 deaths under one year in the state in 1900, 1,933 or over one-fourth were due to infantile diarrhea. Many

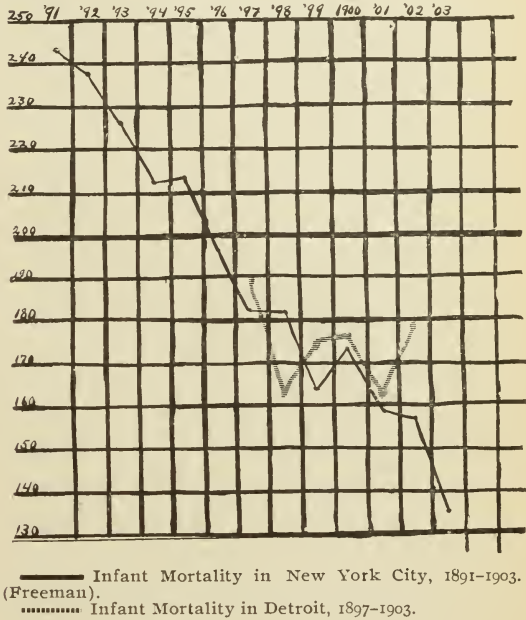


Death rate from Diarrheal disease under five years per 100,000 population in Michigan, 1900.
—— Cities.
..... Rural Districts.

deaths recorded as due to convulsions or debility were undoubtedly also due to diarrheal disease so that the share of infantile diarrhea in the total death-rate is even greater than the figures here given would indicate. This being the largest single item of death, it has also been given by months, as near as may be, the figures for cholera infantum being given

for 1900. This shows the great correspondence of the infant death-rate to the single item of infant diarrhea.

During the last four years over 40 per cent. of the total deaths in the city of Detroit in July and August were from



—— Infant Mortality in New York City, 1891-1903. (Freeman).
..... Infant Mortality in Detroit, 1897-1903.

children under five years of age. It is not possible to say just what proportion of these deaths were due to diarrheal diseases, but from the figures already given it can hardly be doubted that this is the principal etiologic factor. In the state, the total number of deaths in the months of July, August and September, in 1900, was 8,587 of which 1,778 or 20 per cent. were caused by infantile diarrhea.

There is no other single disease which forms so large a part of our mortality for any given season as infantile diarrhea. It also ranks among the first three diseases in the point of total mortality in the state. In fact in 1900, it was the cause of more deaths in the state than any other one disease—the exact figures for that year being as follows:

Infantile diarrhoea	2,503
Organic heart disease.....	2,472
Pneumonia	2,035
Tuberculosis of lungs.....	2,018
Cancer	1,460

In other years, either tuberculosis or pneumonia commonly heads the list, but they with organic heart disease occur at all seasons of the year more or less uniformly and at all ages, whereas infantile diarrhea as shown in these figures comes from one year of life and largely from one season of the year.

The mortality under one year of age in the city of Detroit for the year 1900, then, was about fifteen times as great as the general mortality at all ages for the city. The infant death-rate in both the city and the state of Michigan has been ten times as great as the general mortality rate as far back as we have any reliable statistics. This excessively high rate has been regarded with complacency in general. Comment on the subject is apt to be met by both the profession and the laity with the remark that a large number of deaths among the new-born is to be expected. The reasons given may be included in the conditions recorded ordinarily among the causes of death as congenital debility, hereditary disease, and malformations. In the table following—which probably represents a fair average, malformations, congenital debility and premature birth, caused 1,596 deaths in a total number of deaths under one year of 6,866 or 23.2 per cent. The comment above mentioned is, then, true in a limited degree. The causes mentioned do bring about a large number of deaths during the first year of life, while they are largely eliminated from later death reports. Statistics of

the causes of death, however, quickly show one that these causes do not at all account for the prevailing high rate of infantile mortality; on the contrary, the rate is at once seen to be unnecessarily high because of the large proportion of the deaths of infants which occur from preventable diseases.

In recognition of these facts, the author has attempted to formulate as nearly as may be, a normal infant mortality. In order to do this, deaths should be included in such a mortality only from those diseases which are now considered by the profession to be non-preventable. That is, to subtract from recent mortality statistics those deaths occurring in children from preventable diseases and to call the remainder a normal, an unpreventable, mortality.

In order to determine which diseases should be considered preventable, the following question was addressed to a number of well-known physicians representing different parts of the country and mostly prominent in pediatrics, "Will you kindly mark on the enclosed sheets those diseases of children which you regard as preventable by proper sanitary regulations and efficient medical attendance, leaving those unmarked which you regard as still unpreventable?" The enclosed sheet contained the list of diseases of the condensed Bertillon system of international classification of diseases for statistical purposes. Replies were received from the following physicians: Dr. L. Emmet Holt, New York; Dr. J. P. Crozer-Griffith, of Philadelphia; Dr. F. Forchheimer, of Cincinnati; Dr. C. G. Jennings, of Detroit; Dr. George Dock, of Ann Arbor; Dr. H. B. Baker, of Lansing, and Dr. John Lovett Morse,

of Boston. The substance of their replies is shown in the following table:

LIST OF DISEASES	Holt	Dock	Jennings	Baker	Forchheimer	Crozer G.	Morse	Number of deaths in Mich. in 1900		
								Under 1 year	1 to 2 years	Under 5 years
1 Typhoid fever.....	/	/	/	/	/	/	/	5	13	39
2 Measles.....	/	/	/	/	/	/	/	57	69	229
3 Scarlet fever.....	/	/	/	/	/	/	/	21	27	151
4 Whooping cough.....	/	/	/	/	/	/	/	135	37	199
5 Diphtheria.....	/	/	/	/	/	/	/	49	256	274
6 Influenza.....	/	/	/	/	/	/	/	36	7	52
7 Other epidemic diseases.....	/	o	/	o	/	/	/	8	3	13
8 Malaria.....	/	/	/	/	/	/	/	7	4	23
9 Tuberculosis.....	/	/	/	/	/	/	/	76	40	158
10 Rheumatism.....	x	/	/	/	/	/	/	2	.....	4
11 Diabetes.....	/	/	/	/	/	/	/	1	.....	5
12 Other general diseases.....	/	/	/	/	/	/	/	88	10	111
13 Simple meningitis.....	/	/	/	/	/	/	/	133	71	287
14 Cerebro-spinal meningitis.....	/	/	/	/	/	/	x	.....	.....	.....
15 Cerebral congestion and hemorrhage.....	/	/	/	/	/	/	x	54	12	77
16 Paralysis.....	/	/	/	/	/	/	x	7	2	13
17 Convulsions of infants.....	x	/	/	x	x	x	x	45	43	519
18 Other nervous diseases.....	/	/	/	/	/	/	/	93	28	139
19 Organic heart disease.....	x	/	/	/	/	/	o	153	10	169
20 Other circulatory diseases.....	x	/	/	/	/	/	o	13	7	26
21 Bronchitis.....	x	/	/	/	/	/	x	202	77	412
22 Pneumonia.....	x	/	/	/	/	/	x	547	208	916
23 Pleurisy.....	x	/	/	/	/	/	x	5	1	10
24 Other respiratory diseases.....	x	/	/	/	/	/	/	103	17	134
25 Stomach diseases.....	x	/	/	/	/	/	x	203	23	239
26 Infantile diarrhoea.....	x	/	/	/	/	/	x	1933	404	2502
27 Dysentery.....	/	/	/	/	/	/	x	60	25	107
28 Liver diseases.....	/	/	/	/	/	/	/	21	4	32
29 Peritonitis.....	/	/	/	/	/	/	x	16	10	35
30 Iliac ab-cess.....	/	/	/	/	/	/	/	1	2	10
31 Other digestive diseases.....	/	/	/	/	/	/	x	106	19	144
32 Bright's disease.....	/	/	/	/	/	/	x	5	1	8
33 Other g. u. diseases.....	/	/	/	/	/	/	x	29	10	50
34 Skin diseases.....	/	/	/	/	/	/	x	54	9	70
35 Locomotor disease.....	/	/	/	/	/	/	x	17	5	23
36 Malformations.....	/	/	/	/	/	/	/	183	17	204
37 Diseases of infancy.....	/	/	/	/	/	/	/	1413	21	1441
(a) Congenital debility.....	/	/	/	/	/	/	/	.....	.....	.....
(b) Premature birth.....	/	/	/	/	/	/	o	.....	.....	.....
(c) Neglect.....	/	/	/	/	/	/	o	.....	.....	.....
38 Accidents.....	/	/	/	/	/	/	/	113	46	234
Total.....								6866	1366	9443
Preventable.....								3078	751	4605
								44.8%	54.9%	48.7%

KEY: / Preventable
x Largely preventable
o Partially preventable

On the whole there is fairly good agreement in the answers; a few have qualified the word "preventable" by "almost entirely," "largely" or "partly" in the case of a few diseases. Curiously enough the only disease which was absolutely and unqualifiedly agreed to be preventable was typhoid fever; and in May, this disease was present in 117 different places in the state of Michigan.

Small-pox was not directly checked in this list, as it is included under the head of "other epidemic diseases."

Following the concensus of opinion, typhoid fever, measles, scarlet fever, diphtheria and croup, whooping cough, influenza, other epidemic diseases, malaria and tuberculosis would be regarded as preventable. Convulsions of infants are regarded as largely preventable and there is substantial agreement that stomach diseases, infantile diarrhea, and dysentery, are preventable. These diseases then, and they only, will be considered preventable for the purposes of this paper. It will be noticed that only three of the single diseases (exclusive of congenital anomalies) failed to be held by at least one correspondent "largely preventable." These three are diabetes, cerebro-spinal meningitis and iliac abscess. Four of the gentlemen quoted consider bronchitis, pleurisy and pneumonia to be at least "largely preventable." It is of interest also, to note the long list of diseases to which Dr. Holt applies this term. Dr. Griffith and Dr. Forchheimer insist that accidents should be considered preventable; and indeed when one compares the number of accidental deaths in any American city with that in any English, French or German city of the same size and considers the customs of these cities it is difficult to escape the conclusion that many of our accidental deaths are due to poor police regulations and enforcement.

On this same chart is shown the number of deaths in the state of Michigan for the year 1900 from each of the causes on the list for the ages named. Of 6,866 deaths under one year of age, 3,078 or 44.8 per cent. were caused by the preventable diseases. Of 1,366 deaths be-

tween the ages of one and two, 751 or 54.9 per cent., were preventable. The mortality for Michigan for 1900 having been 126.8 (under one year) if 44.8 per cent. of this was unnecessary, the normal number of deaths for that year would have given a rate of 70 deaths per 1,000 of living infants. If this saving of life could have been carried out in Detroit last year, that city would have had the lowest general mortality of any large city in the country.

It may be said that this rate of 70 per 1,000 of living infants is still too high to be called a normal infant mortality,—certainly nothing higher could be termed a reasonable one. In the calculation only that part of the present high mortality has been taken away which is generally conceded to be preventable. As a matter of fact, infant mortality among the better classes of Americans can today be kept at about one-half the figures quoted above. Dr. Holt in his presidential address before the American Pediatric Society in 1898 said: "Of 151 children who have been in my care during practically their whole infancy during the last eight years, not one died before reaching the age of two years,—only thirty of this number being entirely breast-fed, and in the last eight years practicing almost exclusively among children, I have had among my own patients but six deaths under two years." Dr. Holt continues that he has personally inquired of six of his colleagues in pediatrics in New York and finds that their mortality in private practice varied but little from his own; and he concludes: "From the facts thus obtained, I judge that in the well-to-do classes, with the best care, the mortality from all causes during infancy does not exceed

2-3 per cent. These are hopeful signs and show the possibility of very great reduction in infant mortality everywhere with a better understanding of all the conditions but especially of infant feeding."

The following conclusions may be drawn:

(1) Infant mortality and the care of children are in a general way a measure of the civilization and enlightenment of a state or community.

(2) The state of Michigan and the city of Detroit while corresponding very closely in their general mortality rates, differ markedly in the relative rates of their infant mortality.

(3) The state of Michigan presents the lowest infant mortality rate of any state in the registration area of this country.

(4) The infant death-rate in Detroit exceeds that of any other city in the north equally large with the single exception of Philadelphia and is unnecessarily high.

(5) There is general misapprehension of the real cause of this excessive mortality.

(6) The chief item in this high infant mortality is diarrheal disease.

(7) Infantile diarrhea is constantly one of three most frequent causes of death in the state. Being confined to one year of life and largely to one season of the year, it constitutes the most concentrated body of mortality which we have and in that respect affords a good mark toward which we may direct sanitary measures.

(8) Since infantile diarrhea and the contagious diseases are largely preventable, this mortality is unnecessarily high.

(9) Contrary to the conditions in the country at large and in many of our

large cities, infant mortality in Detroit is not decreasing.

(10) Our present sanitary laws do not efficiently protect our infant population from the diarrheal diseases.

(11) There was substantial agreement among the correspondents named that the following diseases of infants were preventable,—typhoid fever, measles, whooping-cough, scarlet-fever, diphtheria and croup, influenza, other epidemic diseases, malaria and tuberculosis, stomach diseases, infantile diarrhea and dysentery.

(12) a. 44.89 per cent. of the deaths under one year in the state of Michigan in the year 1900 were from preventable diseases. This means that there were 3,078 unnecessary deaths at this age.

b. 54 per cent. of the deaths in the second year of life were from preventable diseases.

c. Congenital conditions accounted for less than one-fourth the deaths under one year.

(13) On this basis a reasonable in-

fant mortality for the state of Michigan, should not exceed 70 per 1,000 living infants.

(14) A normal infant mortality as shown by the experience of Dr. Holt and his colleagues in New York City, would be between 20 and 30 per 1,000 living infants, about one-tenth of the present rate of infantile mortality of Detroit.

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TECHNIQUE OF LABOR.*

W. H. SAWYER,
Hillsdale.

The large per cent. of child bearing women who are subjects for the gynecologist impresses forcibly the extent of the disabilities resulting from the parturient period. It is of course impossible to determine just what proportion of these postpartum lesions are necessary and what avoidable. That the reason for a large per cent. of them antedates the pregnancy and is inherent in the race and individual is unquestionable and

they are consequently beyond the reach and avoidance of the most skilled accoucheur. Many of them, however, are due to faulty management of the second stage of labor and are within the range of prevention.

The correction of the first cause or inherent weakness, with which so many women are affected, is a matter of evolution which many generations of better living only can favorably influence to a marked degree. The tendency of modern civilization and living is not toward improvement but tends to more defective

*Read before the Michigan State Medical Society at its annual meeting at Petoskey, 1905.

and artificial habits of life with less symmetrical development and impaired resistance. The profession has striven to better conditions for posterity and to make art compensate as far as possible for existing defects and thus reduce to the minimum the results of inherited frailties.

Puerperal diseases, because of better management during pregnancy and the lying in period, have become much less frequent and formidable. Postpartum sepsis is rare to-day in the practice of well trained and careful men. While there are still many careless practitioners who do not observe established rules of asepsis, their number grows less year by year, and the demand for higher standards of education both by the profession and the laity, enforced through legal channels, will soon reduce to the minimum the per cent. of the incompetent. The best schools are furnishing practical training in obstetrics which, until the last few years, was not given or demanded. The student was taught by precept, and experience was his only instructor in the practice of his art. Under these circumstances it was a question of individual adaptability and self-education with skill, slowly, if ever, acquired. Any school which does not now furnish an obstetric clinic is handicapped in its standing and reputation for thorough training of its graduates and must lose in competition with its more progressive rivals.

Thorough preparation of the patient, the operator, and the environment, which are now deemed so essential, have superseded the former unpreparedness with which this vitally important business was undertaken. A bag filled with sterile towels, gauze, ligatures, and in-

struments for any emergency of delivery or repair is always at hand. The toilet of the hands is as carefully made as for an abdominal section. A good antiseptic is included in the equipment for the destruction of germs which cleanliness has not banished from the field of infection. Abdominal palpation reveals much to the well trained hand and thus makes the necessity for vaginal exploration less frequent. The instruments are boiled and protected ready for use if needed. In short, the patient is protected by every safeguard of a major operation. Surgical cleanliness is an art and only education, painstaking and persistent, will bring proficiency. No man who is incapable of a certain degree of perfection in this art should be permitted to practice obstetrics. The old superstitions of the lying in room are rapidly disappearing and, in common, with every other department of medicine, scientific research has removed, to a large extent, the uncertainty of cause and effect.

The large number of postpartum disabilities, immediate or remote, are due to lacerations of the uterine neck and perineum. In all labors at full term there is a lesion of the cervix of some degree, many of which heal without interference and are not recognized. Only very rarely is this defect attributable in any way to mismanagement but is an inevitable result.

It is to lacerations of the perineum to which attention especially is called. This injury is estimated to occur in 30 per cent. of all first, and in 10 per cent. of subsequent labors, and that one-half of all are avoidable. If this is true it is a matter of serious concern and a review of the subject is not out of place. In the primipara the frenulum is usually torn

and this slight injury requires no treatment. It is those lacerations of a degree demanding surgical intervention to which the estimates refer. While there is no difference of opinion as to the policy of immediate repair of a laceration or that the results under favorable circumstances are satisfactory, the possibility of non-union and the increased danger of sepsis together with the distress and inconvenience to the patient, make it incumbent upon the attendant to use every means at command to prevent such an accident. Then too, the fact that so many old lacerations are found argues that either immediate repair was not undertaken or union did not take place.

A certain proportion of subcutaneous tears also occur but are obscured by the condition of the parts following labor. Numerous plans have been proposed for the prevention of these injuries, and any means for prevention must be directed to the increase of the distensibility and relaxation of the vaginal outlet and to reduce the diameter which it must compass. The first condition must be met by so controlling the expulsion as to favor a steady and slow movement of the presenting part, giving the tissues time to relax, under pressure and tension, to the necessary degree. This rate of progress is largely within the control of the obstetrician through regulating the forces of labor by anaesthetics, position, and manipulation, thereby retarding a precipitate expulsion before complete relaxation has been obtained. Chloroform carefully administered is most valuable at this stage of labor. It lessens the direct drive of the presenting part in the axis of the body and permits it to follow the axis of the canal, at the same time favoring a relaxation of the tissues gen-

erally. Only the judgment gained by experience will be a guide to its use.

It is sometimes possible by more or less prolonged and careful traction and massage of the perineum in the plane of the pelvic outlet to assist relaxation. The disadvantages of this procedure are the increased dangers of infection and the possible use of too much force. In skilled hands it may be a valuable adjuvant.

To at all times control the smallest possible diameter within the restricting girdle is the serious care of the operator, and lack of intelligent manipulation at this juncture is responsible for the major portion of avoidable injuries. The presenting part should be kept close in under the pubic arch and extension maintained without being forced. The bringing forward of the perineum out of the normal plane, or pressure upon the expanded tissues, can do nothing but harm.

The operation of episiotomy, if used with good judgment, is a very valuable means of saving injury to the pelvic floor. This consists in dividing the resisting ring midway between the anterior and posterior commissures. The structures involved in the incisions which extend for one inch laterally and in the long axis of the body, and to one-fourth inch in depth, are the skin fascia and bulbo-cavernosus muscle. The wounds should be united by suture immediately following labor and they usually heal kindly leaving the vulva intact. It is good practice in every case of persistent occipito-posterior position to resort to the lateral incisions as laceration of considerable extent is the rule. It has been argued that this operation will not save the pelvic floor in every case but only adds to the vulvar injury. While

this may be the occasional result, yet the number of extensive lacerations it will prevent makes it advisable under proper conditions.

It is very important that the parts be exposed for careful inspection at the parturient crisis, as following this practice soon trains the operator to determine more positively the probable degree of distensibility of which the parts are capable and when to take prophylactic measures. An examination after the passage of the head will many times reveal a perineum intact which, after the advent of the shoulders, is found torn. This most often occurs because of hurrying the expulsion of the body by traction out of the normal parabolic axis.

Unless some emergency arises calling for prompt delivery, the head should be supported and the expulsive forces allowed to complete the birth. The posterior shoulder should present first and the arm be brought forward so lessening the diameter which falls within the vul-

var ring. The application of forceps to the after coming head in breach presentations by maintaining flexion will save injury to the perineum. It has been demonstrated that forceps rightly applied and used do not increase the risks to the perineum.

The general practitioner must exercise a degree of ingenuity and resource for which he should have full credit. In a varying and often large percent. of his cases he is precipitated into a labor without having had previous knowledge or direction and must contend on the spur of the moment with the most unfavorable surrounding, and his skill in adapting himself to the conditions is taxed to the utmost. Painstaking and conscientious work under these circumstances will be the measure of his standing as an obstetrician and physician.

While this is only a brief synopsis of well established rules of conduct, yet in experience they are so often disregarded that it does not seem out of order to review the subject at this time.

A NEW HEMORRHOIDAL CLAMP.

ANGUS McLEAN,

Detroit.

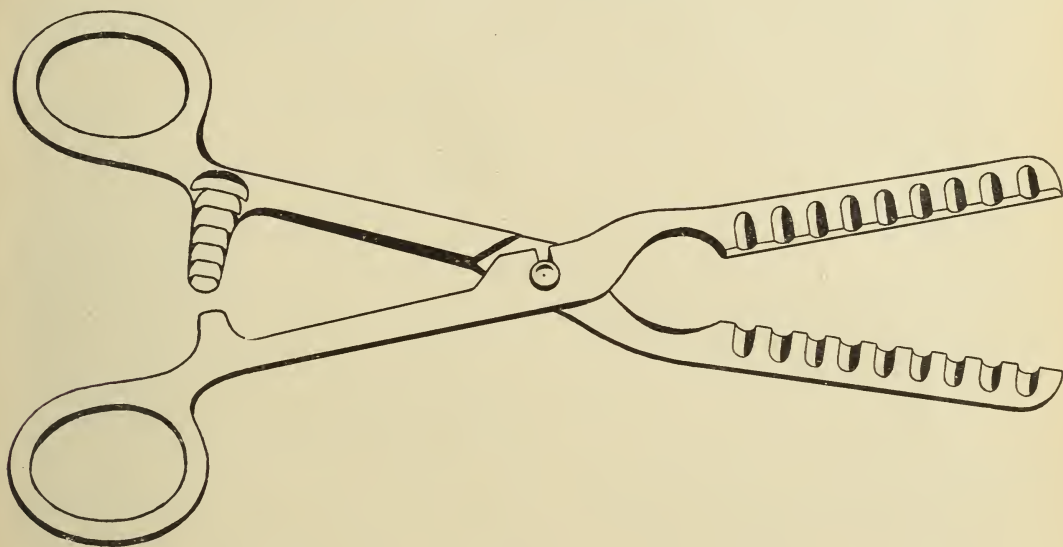
Different methods of treatment, both medicinal and surgical have been suggested and recommended for hemorrhoids. Few cases of hemorrhoids respond to medicinal treatment—such as cathartics, diet, and local applications. The majority of these patients seek surgical relief later in the course of their trouble. Several different methods, such as simple excision, ligation, cautery, clamp, clamp and cautery, etc., have been practiced. The simplest method, and most satisfactory to me, has been that of clamping the pile and stitching the margins of

the mucosa together, as one would in a wound of the integument.

For this purpose I had a clamp made, which I have used for the past two years and the cut of which is here shown. The body of the instrument is not unlike some clamps already in use. The blades are curved longitudinally, with one inner margin grooved and the other ridged. On the concave surface towards the inner margin of each blade is a number of grooves sloping from without inwards, the deepest portion of the groove dipping down two-thirds of the thickness of the blade. When the instrument is closed the

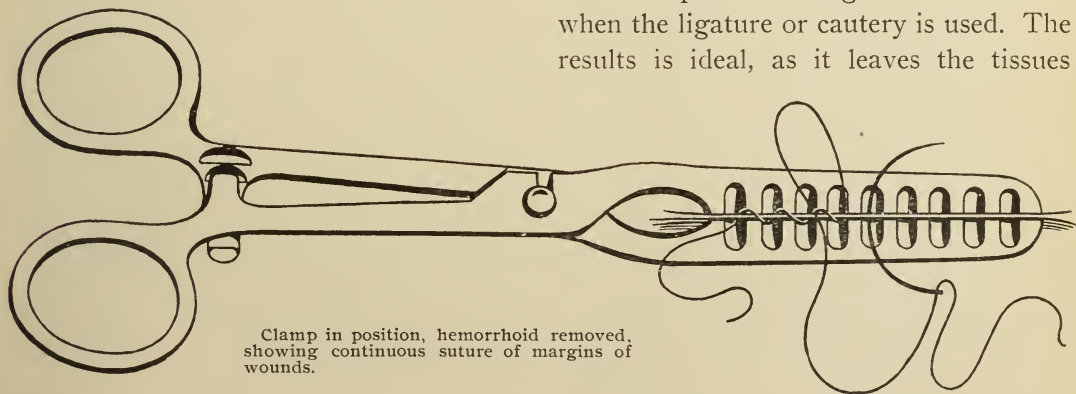
grooves of opposite blades come together so as to form a continuous depression. These grooves are about one-eighth of an inch apart and one-eighth of an inch in width.

through each groove. This suture may be continuous or interrupted. If but a few stitches are required the ends of the continuous suture can be brought together and tied as soon as the clamp is removed.



The hemorrhoid is drawn into prominence by forceps or tenacula and the clamp placed at the desired portion of its base and closed. The pile is then re-

These stitches control all hemorrhage, and bring the margins of the wound in close apposition. There is a very small margin of tissue compressed by the clamp and little sloughing follows. There is much less pain following this method than when the ligature or cautery is used. The results is ideal, as it leaves the tissues



Clamp in position, hemorrhoid removed, showing continuous suture of margins of wounds.

The margins of mucous membrane are now stitched together by passing a well curved needle, with catgut ligature, moved with curved scissors or knife, following the concave surface of the clamp.

in their normal position, without any fear of hemorrhage following, or of cicatrices forming later on.

This instrument can be used satisfactorily for the ligation of any pedicle.

The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to Editor A. P. Biddle, 57 Fort Street West, Detroit, Mich.

Subscription Price, Two Dollars per year, in Advance

DECEMBER, 1905

Editorial.

NEW MEDICAL LEGISLATION.

The last session of the Michigan Legislature enacted the following important amendment to our medical law of 1899:

"The people of the State of Michigan enact:

Section 1. Section seven of act number two hundred thirty-seven of the public acts of eighteen hundred ninety-nine, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," as amended by act number one hundred ninety-one of the public acts of nineteen hundred three, is hereby amended so as to read as follows:

Sec. 7. Any person who shall practice medicine or surgery in this State, who is not the lawful possessor of a certificate of registration issued under and pursuant to act number two hundred thirty-seven of the public acts of eighteen hundred ninety-nine, or the acts amendatory thereof, or without first complying with the provisions of this act, except as heretofore provided in section three of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not more

than two hundred dollars, or by imprisonment in the county jail for a period of not more than six months, or by such fine and imprisonment, for each offense. It shall be the duty of the prosecuting attorneys of the counties of this State to prosecute violations of the provisions of this act.

This act is ordered to take immediate effect.

Approved June 13, 1905.

The increase of penalty is of real importance because the prosecution of offenders may now be commenced in the Circuit Court instead of in Justice Courts as formerly. Heretofore it has been extremely difficult to get the case of one of these offenders into the Circuit Court at all because of the fact that if no conviction is obtained in the Justice Court the people, being the plaintiff, cannot appeal, and the defendant cannot again be required to answer for the same offense. Juries in Justice Courts have almost unlimited powers, being not only judges of the fact but of the law as well. Thus the lower court juries can give greater latitude to personal sympathies, prejudices or friendships. That these elements sometimes have weight with the juries was beautifully illustrated in the cases of Lucas and Griswold tried in Battle Creek in January, 1905. In neither of these cases were the people able to secure a conviction and in both the strongest pressure was brought to bear on the personal sympathies of the jurymen by the attorneys for the defense.

Upon the trial of Griswold, the defendant admitted that he had not complied with the law as to registration, but claimed that since he had been practicing prior to the amendment of 1903 he was not amenable to the law and was not re-

quired to register. On this theory he was acquitted. The prosecuting attorney, after waiting a few days in order to allow Griswold to further violate the law, drew up a complaint against him and presented it to Justice Batdorff, thus raising the point in the pleadings which Griswold relied upon for his defense. The justice refused to file the complaint, contending that Griswold's position was proper and legal. The prosecutor at once asked the circuit judge for a writ of mandamus to compel the justice to act. This was denied and the prosecutor took the matter to the Supreme Court on a writ of certiorari. The Supreme Court reversed the ruling of the circuit judge and granted the writ, fully sustaining the position of the people and the physicians in the following words:

"Attention is called to the fact that the act of 1899 requires all persons engaged in, or who wish to begin the practice, to make application, etc., while the amendatory act omits the former clause, thus apparently limiting the law to cases of beginners in practice. We think this inconsistent with the legislation upon the subject which began as early as 1883.

Act 167, Public Acts, 1883.

Act 216, Public Acts, 1883.

Considering these several acts it is reasonable to believe that in 1899 the Legislature took it for granted that practitioners then engaged in business had complied with the law of 1899, and that it was not the design to compel them to again make application. We can not believe that they deliberately intended to offer a premium to law breakers, which is the effect of respondent's contention. It is more reasonable to say that such a man is a beginner for the purpose of

making such an application, not being already a lawful practitioner.

The order of the Circuit Court is reversed and writ will issue as prayed.

The same Legislature passed an act (No. 330), "To provide for the immediate registrations of births and the requiring of certificates of births."

This act provides that "Local registrars for deaths shall also be the local registrars for births, and the Secretary of State shall be the state registrar for births, as for deaths." It requires certificates to be filed within ten days after birth. Each certificate will contain twenty-one items, as follows:

Sec. 2. The certificate of birth shall contain the following items:

1. Place of birth, including state, county, township, village or city. If in a city, the ward, street and house number. If in a hospital or other institution, the name of the same to be given instead of the street and house number;

2. Full name of child. If the child dies without a name before the certificate is filed, then the words 'died unnamed' shall be entered. If the living child has not been named at the date of filing the certificate of birth, the space for 'full name of child' is to be left blank, to be filled out subsequently by a special return of given name of child as hereinafter provided:

3. Sex of child;

4. Whether a twin, triplet or other plural birth. A separate certificate shall be required for each child in a case of plural birth;

5. Whether legitimate or illegitimate;

6. Full name of father;

7. Residence of father;

8. Color or race of father;

9. Birthplace of father;
10. Age of father at last birthday, in years;
11. Occupation of father;
12. Maiden name of mother, in full;
13. Residence of mother;
14. Color or race of mother;
15. Birthplace of mother;
16. Age of mother at last birthday, in years;
17. Occupation of mother;
18. Number of child of this mother;
19. Number of children of this mother now living;
20. Certificate of physician attending or midwife as to attendance at birth, including statement of year, month, day and hour of birth. This certificate shall be signed by the attending physician or midwife, with date of signature and address. If there was no physician or midwife in attendance, then the father, householder, manager or superintendent of public or private institution, or other competent person whose duty it shall become to file the certificate of birth as provided in section one of this act, shall draw a line through the words, 'I hereby certify that I attended the birth of above child,' and shall write in lieu thereof the words, 'No physician or midwife,' filling out the remainder of the certificate in regard to the year, month, day and hour of birth, and signing the certificate as father, householder, owner of premises, manager or superintendent of institution, as the case may be, with the address;
21. Exact date of filing in office of local registrar, attested by his official signature, and registered number of birth as hereinafter provided.

The certificate shall be written legibly in permanent black ink, and no certificate shall be held to be complete and correct

that does not supply all of the items of information specified above, if possible to obtain them, or satisfactorily account for the omission of any of said items."

Provision is made for making necessary changes in certificates in case facts have not been correctly stated at first, also providing fees for registrars and penalties for neglect or refusal to file certificate by physician or midwife or other person in attendance, and for altering any certificate of birth.

The act was approved June 20, 1905, and goes into effect Jan. 1, 1906.

Amendments were also passed giving the state board of registration power to revoke certificates issued through error or mistake or for circulating advertisements relative to venereal diseases or other matter of any obscene or offensive nature derogatory to good morals; for employing solicitors, cappers, or drummers, subsidizing hotels or boarding houses, or for paying or presenting to any person money or other valuable gift for bringing patients to him; and making it the duty of the board to refuse to issue certificate to any person guilty of grossly unprofessional and dishonest conduct of a character likely to deceive the public.

These amendments take immediate effect.

Approved June 1, 1905.

W. H. HAUGHEY.

THE NORMAL STIMULUS OF INTESTINAL PERISTALSIS.

It seems to be accepted by the majority of physiologists and clinicians that the natural stimulus inducing peristalsis in the colon is mechanical, and further that the essential feature of this stimulus is distention. In other words fecal material collects in the colon in sufficient quantity

to cause stretching of the bowel wall and as a result peristalsis is produced. Under normal conditions the important feature is the quantity, not the quality of the colonic contents. While it is a common clinical experience to observe a small amount of irritating material producing violent peristalsis the process differs essentially from the normal. In health, under normal conditions the chemical character of the feces is of no importance as far as the production of peristalsis is concerned. An inert substance, without chemical affinity for any substance in the intestine is a perfect agent as a stimulus for peristalsis if its consistency is suitable and its quantity sufficient. Many clinical observations strongly favor this view, but in order to gain additional proof I experimented on dogs to observe the effects of different agents upon peristalsis. To determine the effect of distention of the colon, the dog was anesthetized with chloroform, and the abdominal visera well exposed by long longitudinal and transverse incisions. The colon was emersed in normal saline solution at about 100 degrees Fah. A collapsed thin rubber bag was then inserted through the anus and made to rest in the rectum or colon. This bag had a tube attached for the purpose of inflation. By these means any degree of distention of the rectum or colon can be obtained readily. The presence of the uninflated bag in the rectum produced no contraction. Moderate distention was followed after a length of time, varying in different dogs, and at different parts of the bowel, by waves of contraction. Usually the contraction was seen to begin immediately above the bag but occasionally it was first observed at

some distance. As distention was increased the peristaltic contraction followed more promptly and wave after wave propelled the bag along. These contractions continued even after the distention had ruptured the bowel. In most cases contractions of the abdominal muscles accompanied the peristalsis when it had reached a certain strength. These experiments seem to demonstrate that distention of the bowel induces normal peristalsis.

It has been contended by some physiologists that stretching increases and contraction diminishes the volume of a muscle fibre, and further that this increase and decrease in volume promotes the absorption of nutrition and the elimination of waste respectively. Whether this theory is correct or not it can be readily understood that the change of form caused by the stretching stimulates metabolism in the muscle fibre. Herbert Spencer writing on the phylogenesis of the alimentary track, states that "the evolution of the gastrointestinal muscle is made intelligible only when stretching is recognized as the stimulus of peristalsis."

This view of intestinal stimuli gives a physiological and rational explanation of the newer mechanical methods of treating atony of the rectum and colon.

Most of the non-medicinal agents that have proven efficacious in the treatment of chronic constipation involve and depend upon two facts: 1. Cathartic and other chemical irritants are discontinued. 2. Periodic stretching of some portion of the intestinal musculature is practiced.

J. A. MACMILLAN,

County Society News.

FOR THE INFORMATION OF THE COUNTY SECRETARIES.

The following letter has been recently sent to each County Secretary, with the report blank published below:

Dear Doctor—As we are approaching the end of the fiscal year of the Michigan State Medical Society, and, as the Council meets early in January for the purpose of reviewing the work of the past and laying out the work for the next year, it is necessary that the members of the same be fully informed of the condition of every County Medical Society. I would, therefore, appreciate it very much if the dues of every member be collected as soon as possible after the annual meeting of the County Medical Society and forwarded at once to this office, with the list of the new officers and new members, that a good showing may be made.

There has been recently sent you a blank to fill out for the information of the Council. Every Secretary should give his careful attention to the details of the information requested, as the Council must form its judgment upon these reports.

Respectfully,

A. P. BIDDLE,

General Secretary.

NOTICE.—The Secretary of the County Medical Society will please forward this Report to the General Secretary as soon as possible, not later than JANUARY 3RD. The General Secretary will tabulate the same for the information of the Council.

COUNTY SECRETARY'S ANNUAL REPORT.

The..... County Medical Society, Councilor District No.....

Dated190.....

General Secretary,

Michigan State Medical Society,

....., Mich.

Sir:—I herewith submit my Report of the..... County Medical Society for the year ending December 31, 190....:

Number of Active Members.

Number of Honorary Members.

Number admitted during year.

Number lost by death.

Number dropped by non-payment of dues.

Number resigned.

Number of Transfer Cards issued.

Number of Transfer Cards received.

Number of Meetings held.

Number of Papers read.

Number of Clinical Cases presented.

Average Number of Members in attendance at the Meetings.

Number of places in the County where Meetings were held.

Number of Resident Physicians (members) at each place where Meetings were held.

Number and Names of Physicians outside of the County who read papers.

Facilities for reaching places of Meeting—(a) By Rail, (b) By Drives.

Names of Councilors and other Officers of the State Society who attended the Meetings.

Number of Members at the close of the preceding year—Active and Honorary.

Estimated Number of Physicians in the County eligible to Membership (to include Members).

REMARKS.—Here please note what efforts are being made to maintain and to increase membership and interest in the County Medical Society, especially as to those who have been dropped for non-payment of dues.

Names and address of Members who have failed to receive The Journal of the Michigan State Medical Society regularly.

(Signed).....

Secretary.....County Medical Society.

HURON COUNTY.

Whereas, Knowing the injurious nature and the more injurious effects of certain patent medicines now upon the market, several periodicals of the highest standing in our nation, notably The Ladies' Home Journal, Collier's Weekly, and others, have commenced a systematic campaign against the manufacture, sale and use of these nostrums, publishing for that purpose analyses of the various medicines and facts that have come to the knowledge of the editors of these papers; and

Whereas, The press of Huron County is an instrument for the dissemination of ideas, which reaches the people in all walks of life; and hence is capable of incalculable good; therefore,

Be it Resolved, by the Huron County Medical Society in convention assembled, pledging ourselves collectively and individually to the furtherance of this great work, that we invite the cooperation and assistance of the Huron County Press Club in carrying out the campaign begun by the great national periodicals.

B. FRIEDLAENDER,

President.

D. J. McCALL,

Secretary.

LAPEER COUNTY.

The election of officers at the Annual Meeting of the Lapeer County Medical Society, October 11th, resulted as follows:

President—Geo. W. Jones, Imlay City.

Vice-President—W. J. Kay, Lapeer.

Secretary—H. E. Randall, Lapeer.

Treasurer—I. E. Parker, Dryden.

Delegate—Geo. W. Jones, Imlay City.

Alternate—Adam Price, Almont.

Dr. Adam Price, of Almont, read a paper on

"The Control of the More Common Contagious Diseases," in which he advocates uniform methods and time of quarantine for all townships alike. He blames physicians in protecting their pet patients from the full requirements of the law.

Dr. J. S. Caulkins reviewed the field of science, diplomacy, war and literature, showing what men over forty years of age have accomplished. This paper is to be continued at our next meeting.

Dr. Reuben Peterson of Ann Arbor read a paper on "The Indication for Operation in Pelvic Disease."

Abstract:

If we always knew when to operate or advise operation in cases of pelvic disease, a large part of our difficulties would be solved. A good surgeon is not only a skillful operator, but he must possess all that is implied in the way of diagnostic skill and judgment.

Diseases of the Pelvis are divided under four heads: 1. Diseases or disabilities resulting from childbirth. 2. Inflammatory affections. 3. Benign new growths. 4. Malignant disease, including tuberculosis.

A laceration of the cervix requiring operation is accompanied almost always by other pelvic lesions, and as an adjunct to dilatation, curettage, perineorrhaphy and removal of diseased appendages the operation is done. The cases are rare that simply need a trachelorrhaphy. If there be a bad laceration with erosion and eversion of the cervical lips, he would advise operation, even if there were no resulting symptoms.

Ruptured perineum is also usually associated with other forms of pelvic pathology, hence at the same time a perineorrhaphy is performed, the uterus is dilated and curetted, the cervix repaired and lesions of the tubes or ovaries attended to if necessary.

Inflammatory pelvic affections are of two groups, acute and chronic. The great majority of acute non-puerperal cases are due to gonococcus.

Nature protects the healthy peritoneum by throwing out around the inflammatory region vast quantities of plastic lymph. This gives us the clue as to the correct treatment. Open and drain the pus collection, so as to leave the protective lymph wall intact, by a vaginal incision and drainage.

The same is true of acute puerperal infection in a greater degree because of great virulence. The septic symptoms are due more to the absorption from the endometrium of the uterus and if symptoms become alarming these septic foci

should be removed from the interior of the uterus. A laparotomy in this condition does not fulfill conditions of treatment as well as the less radical procedures. A failure to recognize this fact has been responsible for many deaths. These cases are not in the same class as pus tubes or ovarian abscess, as in the later case the pus is usually sterile.

Benign New-Growths.—Ovarian cysts should be removed as soon as the nature of the growth is determined. Much may be lost by delay. Careful microscopic examination shows that a greater percentage of ovarian growths is malignant than formerly supposed.

Fibroids.—His personal opinion gained from an experience of a number of hundreds of cases is that they are a source of danger to the patient and that they should be removed whenever they produce symptoms.

The only hope in malignant cases is in operation. So always operate as long as the disease exists and can be ameliorated by such a procedure. Where the disease has advanced beyond the limits of the uterus, remove all the disease one can with the curette and follow up such treatment with powerful caustics or the actual cautery.

In tuberculosis of the pelvic organs the operation should be as radical as possible and as early. He does not advocate an abdominal incision where the abdomen is filled with tubercular masses without an ascitic accumulation. Operation does little for these dry cases.

Epilepsy and insanity will not be benefitted by the removal of normal ovaries even if the convulsions occur at the menstrual periods.

Sterility.—Here again the indications for operation are clear. If there be disease operate for its cure in the hope of overcoming the sterility.

H. E. RANDALL, Sec.

LENAWEE COUNTY.

INJURIES OF THE HEAD.

HAL C. WYMAN, DETROIT.

(Remarks before the Lenawee Co. Medical Society at Tecumseh, Oct. 10th, 1905.)

There are so many men of wide experience and great skill members of the Lenawee County Medical Society, that it looks much like "carrying coals to Newcastle" to ask me to come here with my comparatively meager knowledge and address you on the injuries of the head.

The external injuries of the head include the bruises, cuts and tears of the scalp, ears and eye-brows, and deserve your attention now ac-

cording to the degree of damage these important organs have sustained and the kind of infection if any has occurred.

Sometimes the whole scalp is torn away and the surgeon confronts the need for a new one. There are four methods of dealing with this problem. When the denuded surface is in a fairly aseptic state of granulation, snip out pieces of sound skin anywhere, bits of skin about the size of a grain of flax, and transfer them to the raw scalp by simply imbedding them in the granulation.

These little grafts may be taken from almost any one who is healthy and has more skin than he actually needs. Dressing them with light paraffin paper and deluging the surface of grafts while covered with paper with warm salt solution is quite essential to the growth of the new scalp tissue. Hair bulbs may be transplanted from the head of one person to another by this method. Large grafts an inch in diameter may be shaved with a sharp razor cutting into the sound tissue and may be made to grow on the granulating head. Dressings must be provided that will not macerate the grafts or loosen them. I have turned long flaps of skin from each shoulder, two inches wide and reaching from acromion to hair line on back of neck, over the exposed pericranium and fastened them in position in contact with stump of frontal scalp near coronal suture. Then the long wound on each shoulder was closed with sutures approximating its long margins. One might in some cases secure enough skin to fill in the absent scalp by fastening the patient alongside of a sound person with plaster of Paris and adhesive dressings—a child to its mother for example and then making a huge flap free on three borders and suturing each border to the injured head. Then where the flap had begun to grow the nutrient border it must be separated from its donor, and all devices which bind them to the patient be relieved. Animals lower in the scale than man have been used in this way in attempts to restore the scalp. I have not known any of them to be successful.

You can see how attractive the scheme of growing the hairy skin of a dog or goat on the peeled head of your patient would be. Such a project involves problems and consideration of drainage and nutrition as serious as those confronted in building the Panama canal, and the dangers from infection would be as threatening and grave as the malaria and yellow fever at the Isthmus.

Cuts of the scalp should be carefully sutured as soon after they occur as possible. No time should be lost in a vain endeavor to clean the wound un-

less it be filled with filth, cinders or other rough bodies. The flow of the bleeding surface is the best antiseptic you can have but the good it might do if often perverted by the surgeon tying his suture so tight that he causes tissue necrosis. Put the stitches in just thick enough and tight enough to make the wound margins touch and not crowd each other. Then if the scalp and hair are soiled and matted they can be washed with soap, water and gasoline until clean and bright as may be.

Dry dressings and few changes give best results. Bruises and abrasions should be gently freed of hairs driven into them and they should be protected by a dressing of.

R Tr. Benzoni Co.....5ss.
Glycerin3i
Powd. soap.5i.

M. Add water enough to make paste.

This application will not hurt the new cells necessary for the repair of the injury and it is easily washed out of the hair with warm water, no matter how long it may have been there.

A man was brought to Emergency Hospital some years ago who had been in a dog fight. It had been his custom on occasions to fight bull dogs on their own terms, getting down on hands and knees and using teeth and nails as dogs do. A bull terrier had caught him by the ear and torn it to bits and shreds. There was little more than a bunch of pulp left. The cartilage was in pieces and some gone. I saved all shreds of ear tissue that I could and sutured them together and laid them on a gauze pad covered with paraffin paper and laid behind the auditory meatus. Every bit was sewed or adjusted to the stump and the whole mass covered lightly with the dressing above mentioned. Healing and granulation of tissue took place rapidly. To look at that ear now you would not think it had been so badly injured. If the ear is torn entirely off it should be replaced. If it cannot be found new ears must be made by erecting a long flap from the neck below the auditory meatus over the upper and posterior walls of the opening. My practice includes one case treated this way with satisfactory results.

When eye brows are cut or torn or bruised the injury is often complicated by damage to frontal sinus, contents of orbit or frontal lobe of brain. The complications will present the most serious features of the case. The mucosa lining the sinus must be treated with good drainage and caution that shreds of it are not permitted to become fastened between the fragments of bone else your patient will develop annoying fistula of the frontal sinus. Be careful in receiving wounds

of eye brows to have the sharp stiff hairs all point the right way and that the knots be not too tight for reasons already named.

Internal injuries of the head on the other hand concern the functions of brain and ear. Such injuries may be transient, brief and fleeting, when we say our patient has been stunned or sustained a concussion of the brain. Or, they may be deep and lasting when we say he has suffered a compression of the brain. Questions of diagnosis are sometimes quite hard to decide when the organs inside the head are concerned. I have found it a good idea to have a sort of working diagnosis for all such cases—if my patient has only disturbance of a sensory character, for example, if he is word blind and does not know a word when he sees it, or word deaf, does not know a word when he hears it, I say that he has an injury in the sensory region behind the fissure of Rolando. If he cannot speak certain words, has aphasia or has enfeebled movements of fingers or hands then we find the lesion in brain tissue in front of the fissure of Rolando.

To demonstrate the accuracy of this working hypothesis we open the skull with an inch trephine anywhere between the external auditory meatus and the vertex of the skull. Then from that opening work up or down forward or backward with a bone gnawer in the direction in which the impaired functions leads us to think the lesions most likely is. If our patient has homonymous hemianopia of course we would look for the injury in the occipital lobe cunei and in that case we would open the skull over the cunei through the occipital bone. Practically all the other intracranium palpable can be searched through the channels mentioned. But one fact we must make sure to understand before we can do our whole duty to our case of intracranial injury and that is, there may be an intracranial injury demanding operation presenting no focalizing or localizing symptoms. Such a case would present no one sided paralysis or paresis, no one sided sensory impairment, no squint, ptosis or facial palsy, but there would be coma and more or less general loss of ability to direct and control the forces of the body. The working hypothesis I have laid down embraces all such cases. The opening in the skull just in front of the auditory meatus will expose the middle meningeal artery which is the source of the trouble nearly always. Violence applied to almost any part of head is liable to rupture that artery. It will bleed slowly usually and its clot will compress the brain gradually. Your patient will almost always have a sense interval between the concussion symptoms inci-

dent to the reception of the violence and the development of coma and other symptoms of cerebral compression.

Preparatory to opening the skull there should be careful cleansing of scalp. The field of operation, that is the side of the head from sagittal to mastoid ought to be clipped or shaved and the skin thoroughly washed with soap and alcohol.

Then make a horse shoe shaped incision and turn down the flap over the ear, apply the crown of trephine to smoothest place you can find and proceed with great caution to twist out a button of bone. This may be the thinnest skull ever and the crown of your trephine go crashing irreparably into the brain if you are not careful to lift the instrument after every turn or two. I test the depth and resistance of the cranium to my instrument by inserting an elevator into the groove and using it as a lever to pry out the button. Some surgeons pound or knock the button loose after it is sawed sufficient, but I think that bad practice, for the brain does not tolerate concussion well always. I have plugged the middle meningeal artery with a sterile piece of cork and have tied it to control the haemorrhage from it. It is the vessel that gives you most concern in gaining access to skull cavity and should receive your respectful consideration. In the main all injuries of internal organs of head should have the benefit of cranial drainage as above described.

MONTCALM COUNTY.

The annual meeting of the Montcalm County Medical Society held at Greenville on the 12th of October was one of the largest and most interesting in the history of the society. Nearly every one on the program responded and five new names were added to the membership.

The officers elected for the ensuing year are as follows:

President—John Avery, Greenville.

First Vice-President—F. R. Blanchard, Lakeview.

Second Vice-President—W. R. Gamber, Stanton.

Third Vice-President—Jay O. Nelson, Howard City.

Fourth Vice-President—R. H. Blaisdell, Sheridan.

Secretary-Treasurer—H. L. Bower, Greenville.

Dr. F. R. Blanchard read a paper on "Anaesthetics" and Jay O. Nelson read one on "Medical Treatment of Appendicitis."

H. L. BOWER, Sec.

MEDICAL TREATMENT OF APPENDICITIS.

JAY O. NELSON,
Howard City.

Having become somewhat hardened to surprises through long years of practical experience stands me in good stead, when I receive an invitation to attend the Montcalm Co. Medical Society and find therein my name in very prominent type, promising to tell the assembled disciples of Escalapius something about some bodily ailment, which has been thrashed through the machinery of the medical and surgical journals, societies innumerable, and which subject would seem to have received the attention deserved, and conclusions arrived at which would settle for all the vexed question. But so long as human beings have a wholesome disregard and horror of having the abdominal cavity tampered with, just so long will the operation in all cases of appendicitis not become popular. And it is very gratifying to see such men as Robert T. Morris modifying their views upon the subject of interval operation in this disease, and only advising it in those cases where the tumor can be palpated. And he even makes the startling assertion that unless the surgical service is very competent, the cases of acute appendicitis are safer under the ice, opium and starvation treatment. Surgeons are not always wholly consistent, and I recall a surgeon friend of mine in the early 90's, and who was very prone to operate upon all cases of appendicitis, himself resisting operation when competent service was at hand until ten inches of the gut was gangrenous, and general septic peritonitis fully established. Allow me to place myself in the right light before my fellow practitioners. I certainly do not wish to put myself upon record as not favoring appendicitis operations. My hospital training was distinctly surgical, and my ambition lay in that direction. I only speak for conservative work. It is my opinion that since Drs. Henry Sands and Chas. McBurney took up the subject, and made it an especial operation, that it has saved more lives than any, other one surgical procedure. It has done something else. It has made accurate diagnosis an imperative necessity, and thereby raising the standard of physicians from the old empirical pill and drop giver to a scientific diagnostician.

As I look back upon the years of my childhood spent in a small country village in Ohio,

it is hard to recall what the inhabitants died of. It was generally conceded to be "inflammation of the bowels," "peritonitis," a "run of fever," and my conclusion is that if those early country doctors had insisted upon autopsies, they would have found conditions existing inside the abdominal cavity that they "wot no of."

General Pathogenesis.—The vermiform appendix is a glandular organ presenting a certain analogy to the tonsils, and liable as well to follicular, mucous, submucous, infectious, exudative, and ulcerative disorders. And as some people are more liable than others to have follicular inflammations, so some people are somewhat predisposed to have follicular and catarrhal inflammations of the appendix.

Etiology.—I am fully convinced that the basis of nine-tenths of the cases arise from over-eating, insufficient mastication, and over-indulgence in alcoholics, the first two causing constipation, and the latter congestion, poor digestion, and paralyzes the muscular coat of the bowel. The fact that this condition furnishes an excellent culture medium for the bacilli coli communis often completes the cycle of causes which set up an acute inflammatory condition in the appendix. I am not a believer in concoctions and foreign bodies being the primary cause, but after a catarrhal congestion should there be a concretion in the distal end, it is held there by the swelling of the mucous coats, acts as a foreign body. The catarrhal condition goes on to ulceration, perforation. Those which do not perforate have a strictural condition with the foreign body as a constant irritant, preventing involution, and consequent safety from recurring attacks. The fulminating cases we need mention but not discuss.

Medical Treatment.—Is only of value within a few hours of the initial pain; the sooner the better. I would say not later than 6 to 10 hours, and certainly not after any signs of abscess formation are present. My method of procedure is to order calomel, gr. j; sodii. bicarb, gr. j, every hour for four doses; a low large enema of warm soap-suds at once. External applications of wet hot cloths repeated every 10 or 15 minutes. Should the low enema not be satisfactory, a high enema of hot soap-suds is given. Should these measures not show conclusive definite results in from 6 to 8 hours, that, is the acute pain subsiding, point of tenderness diminishing or disappearing, with pulse and temperature showing improved condition, then a radical change in the

treatment must be instituted, substitution of ice bag or leiter coil to the abdomen, starvation treatment, enemata for bowel action, normal saline solution by rectum for thirst, and a general and expectant line of treatment, and careful watch for any abscess formation when, of course, surgical measures must be instituted.

In regard to the use of an opiate it is an absolute necessity in some cases, but should be withheld until the last dose of calomel given if possible. I feel that it is safer to dull the pain than it is to allow the patient to throw him or herself about in agony. So long as the attending physician does not allow his own diagnostic abilities to become dulled at the same time, the danger is not added to. I certainly believe that by quieting the muscular spasm, we put the part in the best condition possible for improvement. One thing I do insist upon, that is hypodermic medication, never leave morphine or opium to be given at the discretion of friends of the patient. They are most apt to allow their sympathies to lead them into error, and create conditions which the physician finds very hard to correct.

ANAESTHETICS.

F. R. BLANCHARD, LAKEVIEW.

From the earliest ages attempts have been made to relieve pain by the induction of insensibility. Homer records the use of cataplasms. The Egyptians were acquainted with the soothing effects of *Nepenthe*. The Chinese were also accustomed as early as the third century to produce insensibility during surgical operations by the use of Indian Hemp.

The most potent anaesthetic known to the ancients was *mandragora*, a half ounce of an infusion in wine would render one insensible to the pain of an amputation. The sleep thus produced might continue for several hours, hence, no doubt the origin of the story of the sleep of Juliet as recorded by Shakespeare.

The Jewish women were in the habit of giving this anaesthetic to the victims of crucifixion, hence the origin of the "wine mingled with myrrh" as recorded by St. Mark.

While Dante was writing the *Inferno*, Theodoric, a surgeon of Bologna, taught the art of producing insensibility by inhalation of the vapor wielded by a medicated sponge that had been steeped in a decoction of opium, belladonna, hyoscyamus, *mandragora*, hemlock, ivy and lettuce.

It is probable that the alchemists knew of the

anaesthetic properties of ether and alcohol. The closing years of the last century were marked by a remarkable apathy regarding the use of anaesthetics.

As early as 1785, Dr. Pearson of Birmingham had inhaled the vapor of sulphuric ether but without practical results.

In 1799, Humphrey Davy, laboratory assistant of Dr. Beddoes, in the Pneumatic Institution at Clifton near Bristol discovered the exhilarating properties of nitrous oxide gas. He recorded his experience with this comment, "as nitrous oxide in its extensive operation seems capable of destroying physical pain, it may probably be used with advantage in surgical operations, in which no great effusion of blood takes place." Though widely circulated this seems to have produced no practical results.

During this long period of time, no systematic research had been undertaken with a view to the discovery of a method for the production of artificial anaesthesia.

Dr. Warren, of Boston, had used sulphuric ether for the relief of asthma in 1805.

In the year 1839, Dr. Long, of Jefferson, Georgia, administered it to a patient for the removal of a tumor of the neck, and during 1842 and 1843 he administered it several times, but as he lived in a remote part of the country and published no statement, his discovery was of no use to the scientific world.

About this time a young dentist of Boston, Dr. T. G. Morton, had been experimenting with ether, and on Oct. 16, 1846, he administered it to a patient from whom Dr. Warren removed a tumor of the neck at the Massachusetts General Hospital. The experiment was a success, and was again and again repeated. Intelligence of the great discovery soon reached England and was speedily diffused throughout the civilized world. In the following year, the celebrated physiologist Flourens described the effects of chloroform on the lower animals. About the same time a medical student in London, Furnell, discovered its anaesthetic properties, and at his suggestion it was employed several times at St. Bartholemew's Hospital. The agreeable qualities of the new anaesthetic soon led to its adoption in preference to ether.

Since that time many new substances, used as anaesthetics have been discovered, such as, cocaine, eucaïne, ethyl chloride, methyl chloride, ethyl bromide, *Schleich's* solution, etc., but ether and chloroform seem to be the only two which have stood the test of time and of these two the preponderance of evidence seems to be that ether

is the safest. In certain conditions chloroform is preferable, as in nephritis, in children under 6 years of age, in cases of an emergency where the patient has recently ingested solid food, or where ether has been administered before and some serious symptoms developed.

Until science brings forth some new substance which answers every purpose of an ideal anaesthetic, these two, ether and chloroform will continue to hold first place in the surgical world.

OTTAWA COUNTY.

At the regular annual meeting of the Ottawa County Medical Society, the following officers were elected:

President—Dr. B. B. Godfrey.

First Vice-President—Dr. R. J. Walker.

Second Vice-President—Dr. E. De Spelder.

Secretary—Dr. E. D. Kremers.

Treasurer—Dr. J. J. Mersen.

Delegate—Dr. H. Kremers.

Alternate—Dr. D. G. Cook.

Board of Directors—Drs. T. G. Huizenga, E. De Spelder, J. A. Mabbs, B. B. Godfrey, J. W. Van Den Berg.

A very interesting symposium on obstetrics was given and a large and enthusiastic meeting was held.

E. D. KREMERS, Sec.

PRESQUE ISLE COUNTY.

The annual meeting of the Presque Isle County Medical Society was held at Onaway, Wednesday, Oct. 4th, at which time the following officers were elected:

President—DeWitt C. Howell, Onaway.

Vice-President—John Young, Onaway.

Secretary-Treasurer—Wm. W. Arscott, Rogers City.

Delegate—DeWitt C. Howell.

Alternate—John Young.

Resolutions of condolence were adopted regretting the loss of our beloved friend and associate, Dr. Edward Erskine, of Rogers City, who died suddenly August 10th.

WM. W. ARSCOTT, Sec.

SAGINAW COUNTY.

The annual meeting of the Saginaw County Medical Society was held in the City Hall, Saginaw, Mich., Oct. 3rd, 1905. The following officers were elected:

President—B. B. Rowe, Saginaw.

Vice-President—E. E. Curtis, Saginaw.

Secretary-Treasurer—P. S. Windham, Saginaw.
Directors—W. L. Dickinson, Fletcher S. Smith, and J. W. McMeekin.

Delegate to State Society—W. L. Dickinson.

Alternate—B. B. Rowe.

The report of the secretary showed a membership of thirty-eight, and a balance of \$11.02 in the treasury.

The retiring president, W. L. Dickinson, gave a short address on "Good and Welfare of the Society." Dr. O. P. Barber read a paper on "Pure Water and How to Obtain it for Saginaw."

Abstract:

"I am satisfied that the way is at least open, whereby we can practically and economically obtain what we have so long needed in Saginaw, absolutely pure water.

"The method consists in brief of placing in a proper chute electrodes standing close together through which the water runs. These electrodes are surrounded by a magnetic field. A direct current is brought in contact with the electrode, and an alternating current with the magnets.

"It electrifies, then, so to speak. This can be readily understood beyond a doubt, when one witnesses the combined action of the two currents generating in enormous quantities nascent oxygen and hydrogen, which destroys then and there all bacteria, leaving the water surgically sterile.

"In fact, the product is the acme of sterilization, producing the purest water known as soft as pure rain water, and the most palatable water ever tasted. Spring water in comparison is raw water.

"You will excuse me if I seem to be extra enthusiastic over this electromagnetic method of producing pure water, but, it certainly is pardonable when you think that water taken at any time directly from our river can be furnished to our citizens as soft as the softest rain water, and absolutely clean and clear and palatable, and free from any chemicals or bacteria. And then so surgically sterile that it can be used for any surgical work, and all this, too, at a more economical price, (as has been many times demonstrated), than by any other process.

"This process is not experimental; it has been demonstrated in various places, notably New York, on all classes of water, namely sewage, factory waste and all kinds of pollution. It has now reached the practical and economical stage and the cost to place a plant in a city of this size will be but little more, including filtration, than would be charged for an ordinary so-called filtration plant. When installed, it has this addi-

tional advantage, that there are no chemicals to continue buying for coagulating purposes.

"In discussing the chemical question with me, a layman actually argued that the chemicals would destroy all germs, but you medical men must know how preposterous such a contention is. Further no filtrate completely removes the chemicals from the water, and the use of it would in time work injury to the health of a community.

"In fact, the strength of this solution would be deadly, its cost prohibitive, and I only speak of it here to show you how little knowledge is held by the public generally on this subject, and how necessary it is that we medical men realize that we owe it to the public to educate them on this subject.

"As to the cost, a plant with a million-gallon capacity would cost this city between \$15,000 and \$20,000, with no further expense except that of maintenance. Further, the company owning the patent makes the proposition that they will install a trial plant of 250,000-gallon capacity, which would demonstrate their work, at a cost of \$5,000 and guarantee to produce the following result: Absolutely pure water, free from all kinds of biological and bacteriological impurities, with the understanding that when they have accomplished and demonstrated this result the city would contract for a plant to treat their entire supply, the price of this initial plant to apply to the complete plant to treat the entire supply."

P. S. WINDHAM, Sec.

SCHOOLCRAFT COUNTY.

The Schoolcraft County Medical Society, at its annual meeting, passed resolutions condemning the practice of druggists in refilling prescriptions without the physician's written order. It was also decided that on and after January 1st, 1906, no members of the county society will make insurance examinations for fraternal or other societies for less than the sum of \$2 for each examination.

G. M. LIVINGSTON, Sec.

ST. JOSEPH COUNTY.

The following paper was read before St. Joseph County Medical Society Oct. 10, 1905:

UTERINE FIBROMA, WITH REPORT OF A CASE.

Blanche M. Haines, Three Rivers.

Fibroid tumors, although classed as benign growths, occupy, when they develop in the uterus, a borderland between benign and malignant tumors. Complications of pain,

serious hemorrhage, sarcomatous or other malignant degeneration, and pregnancy render these tumors of the uterus a menace to the lives of one-third of all women who possess them.

The etiology of fibroid tumors is, like the causes of other tumors, both malignant and benign, a still undiscovered country, a fruitful field for pathological research in the future as in the past.

Fibroid tumors conform to the rule of all tumors, and are made up of the same histological elements that the mother tissue is, or the tissue from which they spring, namely, muscle, connective fibrous tissue and blood vessels in varying proportions.

Whether we accept as the cause of tumors, the embryonal cell theory of Cohnheim, which originates them in foetal life with a quiescent period until their growth begins, or the parasitic theory of a later day, speculating on the protozoa as a cause, or the autotoxic hypothesis, which finds in a faulty metabolism an origin. Whether we accept or not any of these theories, the following law applies to tumors as to many other pathological processes, namely, that a diminished resistance is an etiological factor in their development, consequently, certain pathological processes in the uterus diminishing resistance, may be contributory causes in the development of uterine fibroids.

William H. Byford said, more than twenty years ago, that "Great hyperemia of the uterus predisposes to fibrous tumors of that organ, and they are associated with sterility, dysmenorrhoea, menorrhagia, and mal-positions of the uterus."

These symptoms, we know, are in turn associated with uterine inflammations. Uterine displacement is preceded by uterine inflammation. We have yet to see a case of mal-position of the uterus which is not accompanied or preceded by inflammation of the organ. Old versions and flexions show, invariably, hyperplasia of uterine tissue.

Mary Dixon Jones asserts that "when there is a myofibroma not only is the uterus diseased, but it is the disease of the uterus that produces the fibroid growth." "Inflammations elsewhere in the body are followed by fibrous connective tissue," as we observe in scars in fibrous bands after appendicitis, pleuritis, injuries and other inflammations. Fibrous tissue is, then, the aftermath of an inflammation.

Race is a predisposing cause. Fibroids are more common in the black than in the white

race. In a very limited practice among negro women we have to report three gynecological cases in private practice, two of which had fibroid tumors of the uterus. The third patient was only one-quarter negro. The nulliparous woman is more apt to have fibroids, than the woman who has borne children; likewise the nulliparous woman is more apt to have a pathological uterus to which the sterility may be due. The active menstrual life of the nulliparous woman, without the normal breaks and rests of pregnancy and lactation, predispose to pathological conditions of the uterus.

We have this sequence in fibroids of the uterus, an inflammation or hyperemia or malposition of the organ followed by a fibroid growth, and enlargement accompanying the growth of the tumor, an increase in the size and depth of the uterine cavity, with a corresponding increase in the endometrium giving that much hemorrhagic surface and accounting in a measure for the hemorrhages of these tumors. Although the increased growth of the blood vessels in the tumor is a factor in the hemorrhages, the soft or myomatous tumors are more apt to be accompanied by bleeding. They grow faster, have less connective tissue to support the walls of the blood vessels and yield to variations in blood pressure easier. The submucous tumor for the same reason is more frequently associated with hemorrhage.

The symptom of pain is due to the increase in size, and the pressure from that cause and the contractions of the uterus similar to that in dysmenorrhea or labor pains.

Prognosis.—John G. Clark, of Philadelphia, estimates 2 per cent. of all fibroid tumors as associated with malignant processes. While Penrose estimates 18 per cent. of changes and degenerations which threaten life, and Noble, of Philadelphia, estimates a mortality of over one-third of all unoperated cases. Multiple tumors are more likely to become malignant.

Pregnancy is a grave complication occurring in these cases. The gravity depending on the situation and type of growth. Pregnancy does not occur so frequently in these cases, owing to the coexisting diseased endometrium, but an amelioration of the endometritis may be followed, as in uncomplicated endometritis, by pregnancy.

The type of tumor which is most apt to be so complicated is the interstitial variety, situated in the middle third of the uterus and

which is fortunate for the prognosis. This type giving fewer complications at delivery.

Fibroids predispose to abortion, but if a case goes to term the delivery may be entirely normal. Post partum hemorrhage or rupture of uterine wall may be possible complications.

A tumor in the lower segment of the uterus or the submucous variety may cause mechanical obstruction to labor, and these are most apt to be attended by hemorrhage because of interference with uterine contractions.

Another feature of these cases is that the tumor grows with the growth of the pregnant uterus, so that we have a larger tumor mass at term than we started with. Fibroid tumors develop as a rule during the menstrual life of a woman and undergo involution at the time of the menopause along with the involution of the uterus. There are exceptions to this rule, and we find them persisting and growing after the change. But occasionally we find a uterus which does not atrophy after the menopause. The menopause is frequently retarded by the tumor.

A similar involution of tumor and uterus may follow labor. Howitz, of Copenhagen, observed the involution of fibroid tumors after labor, and advised prolonged nursing as a factor, and even advised artificial stimulation by means of aspiration of nipples. W. H. Byford reports three cases of disappearance of tumors after parturition..

L. H. Duming, of Indiana, reports a fibroid the size of a lemon in the anterior wall of uterus, which after a miscarriage of seven months diminished in four months to the size of a walnut.

The case we have to report is as follows: Mrs. M. White, American, age 29, came to me for treatment in the summer of 1894. She had been married about one year. She gave a history of dysmenorrhea and profuse menstruation from the establishment of the menstrual function. She had a chronic constipation and had been frail in her early girlhood. A few months prior to the time she became my patient the dysmenorrhea had increased and pelvic pains were present more or less at all times. I found on examination a retroflexion of the uterus, a metritis and endometritis with enlargement of the uterus, a cervical erosion and a purulent discharge. Under local and general treatment the inflammatory symptoms subsided. The retroflexion remained, but, save for the dysmenorrhea, did not cause trouble.

The four consecutive autumns of '95, '96, '97

and '98 she had attacks of dysentery with bloody discharges and fever. We saw no relation in these to the pelvic conditions, but give them as they occurred. Her condition remained unchanged until the summer of 1898.

I met her on the street after an absence of seven months, her pallor and emaciation were extreme. In a few days she presented herself for examination, and I found a fibroid tumor in the right anterior middle third of the uterus. The tumor was as large as an orange. She complained of pain in the right iliac region, and constant hemorrhage with excessive hemorrhage at the menstrual period. Fl. Ext. Ergot (Squibbs) was prescribed with instructions to take 15 gtt. every four hours, increasing the dose a few drops each day until 30 gtt. or possibly dram doses were reached. Rest in bed was ordered during the menstrual period, and the patient was watched for ergotism. It developed in October; a severe and alarming gastritis occurred on the 30 gtt. doses of ergot, and it was withdrawn. The hemorrhage ceased during the rest in bed, necessitated by the gastritis. Hysterectomy was not advised at this or any subsequent time, but was considered. Fluid Hydrastis (Merrill's) was now substituted for the ergot in half dram to dram doses t. i. d. The general improvement was marked. No more intermenstrual hemorrhages occurred, although the menstrual flow was profuse for several months, but gradually lessened and the pains also. When the pain was present, equal parts of Liquor Sedans (P. D. & Co.) and Hydrastis were prescribed.

The Hydrastis was continued a year and a half, until she gave a history of no dysmenorrhea. Examination at this time, 1899, revealed an absence of retro-flexion, but a tumor the size of a foetal head at term.

June, 1900, found her again in bed with nausea and vomiting, which was excessive, tongue red, and suppression of menses. A diagnosis of pregnancy was made. She was bedfast six weeks with the nausea and vomiting, but slowly improved, and her pregnancy was, henceforward, normal except for a severe attack of hemorrhoids in the last month of it. These she had never had before, and has never had since. We ascribe them to the pressure of the tumor and foetal mass and the resulting interference with pelvic circulation.

On the evening of Feb. 18, 1901, she entered on her labor as a primipara, age 36, with a fibroid tumor the size of a head filling one side of the abdomen. The pains were strong

and dilating until dilatation was complete at 3 p. m. on the following day, Feb. 19. The expulsive pains were not so effective, and were more wearing in character and fearing possible rupture of the uterus, I sent for Dr. T. J. Haines. He immediately administered chloroform, and at 5 p. m. I delivered, with forceps, a 9-pound girl. A laceration of the perineum was repaired immediately. Immediately following the birth of the child, while busy resuscitating it, I directed Dr. Haines to see that the uterus was contracting. He, unacquainted with the size of the tumor, announced that we had yet another foetus to deliver. And following the outlines of the uterus through the abdominal walls, we found it reaching almost to the sternum. After the delivery of the placenta, the fundus was found, midway above the umbilicus, between it and the ensiform cartilage. The mass was uterus and tumor. No unusual hemorrhage followed the delivery. Theorizing that the increased blood supply of pregnancy would cause an increase in the size of the uterus, I directed a long convalescence in order that the involution of the uterus in the lying-in period should be favored in every way, hoping for a simultaneous involution or reduction of the fibroid tumor. In addition a position in bed on sides and face, instead of back, was directed to counteract any tendency to retroversion and flexion.

The involution theory worked out nicely. A year later, no medicine or treatment having been given in the interim, an examination revealed a normally placed uterus, free from inflammation, with a small fibrous mass to the right no larger than an egg. The pain in the right iliac region had ceased.

She was again pregnant in 1903, and aborted at the third month with considerable hemorrhage. No distinct tumor could be distinguished at that time. At this date, Sept., 1905, she assures me she is well, free from dysmenorrhea, has a normal menstrual flow, and is sure she has no tumor and that she is a normal healthy woman.

Treatment:—An operation was never advised in this case. First, because this woman was an important and necessary individual in her home, another invalid depending on her.

Secondly, palliative and medicinal measures removed the complications of hemorrhage and pain. The indications for operation in fibroids are hemorrhage, pain, a rapidly growing tumor or multiple tumors, one in the lower segment of the uterus or a submucous one.

Subserous or intramural tumors of small size, not complicated, are not always material for the surgeon.

The early history of operations on fibroids was bloody and fatal. The first case operated upon in 1829 by Granville died. Emmet gave in 1884 a death rate of 47 per cent. in 359 hysterectomies for fibroids. Even at late as 1904 Noble, of Philadelphia, while giving a mortality of 2 per cent. for the operation in uncomplicated cases, gives a mortality of 30 per cent. in graver complications, and admits that he does not advise immediate operation in small subserous and intramural tumors. Howard Kelly urges the conservative operation of myomectomy in suitable cases, as it conserves the uterus. The uterine hypertrophy undergoes involution in the convalescence from the operation. This operation is frequently complicated with hemorrhage.

The history of the case reported coincides in many respects with the observation of other observers. The pre-existing inflammation predisposed to the fibroid growth. A unique feature of this case, which we have not seen paralleled, was the mechanical effect of the tumor in the anterior wall, lifting up the fundus of the uterus as it increased in size, and correcting the retro-flexion.

The hydrastis given for its special action on unstriped muscular fibre with a view to its hemostatic effect, by virtue of its effect in stimulating glandular activity improved the endometritis. The endometritis and retro-flexion removed pregnancy occurred, and the involution of the tumor resulted, as Byford, Howitz and Dunning had observed in other parturient cases, and our fibroid disappeared in consequence of the pregnancy.

WAYNE COUNTY.

Annual Address of Retiring President.

Guy L. Kiefer, Detroit.

You have just listened to a most interesting report of the Petoskey meeting of the State Medical Society by one of your delegates, Dr. Hitchcock, and you have been treated to a most delightful trip to Portland and return, together with an account of the meeting of the American Association by Dr. Robbins. I do not believe that you are in a mood to listen to a lengthy and more or less scholarly address on some far off subject by the retiring president.

Under these circumstances I have decided to exercise my presidential prerogative for the last time and rule that the address as an-

nounced by the program is out of order. In its place, however, I deem it proper to give you a brief report of the work of the Wayne County Medical Society during the past year.

The plan of holding meetings as prescribed by the new constitution was inaugurated with the first meeting last September. The general meetings were accordingly held on the first and third Mondays of each month and the section meetings on the second and fourth Mondays respectively. This innovation was a decided success, the average attendance at our meetings during the year being 74, as compared with 56 the year previous.

The papers presented during the year were very instructive and enjoyable, and they were made particularly interesting by the careful arrangement given them by the program committee. The work was arranged in such a manner that papers on certain subjects would follow each other systematically, so that for example one month would be devoted to a study of diseases of the kidney, another to acute infectious diseases, and so on.

The society was fortunate in securing papers from noted men from outside of the city, among them being Dr. Robert T. Morris, of New York, Dr. H. P. Anderson, of Toronto, Dr. Elliott, of Muskoka, and Drs. McMurrich and Huber, of the University of Michigan.

The social feature of our meetings received more than usual attention. A number of the regular meetings were followed by an enjoyable buffet luncheon, and it is more than possible that this social feature has something to do with the increased attendance at meetings.

In spite of the fact that your program committee expended considerable money for midnight lunches, served after meeting to its members, the report of the treasurer will show that there is a balance of \$325.00 in the treasury to-day, as compared with \$250.00 a year ago, and when you consider that \$100.00 was voted by the Board of Directors to the Defense League, the difference becomes all the greater.

The membership has been considerably increased during the year, sixty new members having been admitted, bringing our total membership at present up to nearly 400. This statement brings to mind the fact that there are still remaining in Wayne County over three hundred regularly registered physicians who would make desirable members and it may not be out of place for me to suggest that a special effort be made during the coming year to secure as many of them as possible. I

would recommend, if you please, that a membership committee be appointed whose special duty it shall be to look after new members. In making this suggestion I wish to repeat what I said a year ago, that each member should endeavor to get his neighbors and friends who are not members of the society, to join at once.

Besides the regular routine work of the society several innovations were introduced during the year. At the suggestion of Dr. Tibbals the Defense League of the Wayne County Medical Society was organized. Although the league has done quite well in securing members, there are still a number of members of the society who have not joined the Defense League. All who have not done so, should do so at once, as the league, which is officered and managed by members of this society, offers to its members as safe and good protection for five dollars a year as they can obtain from the various private corporations throughout the country for four or five times that amount.

Another new feature of the work was the First District Councilor Meeting, which was held upon the suggestion of Dr. Leartus Connor. A meeting of the county societies comprising the first councilor district, viz.: Macomb, Lenawee, Monroe, Oakland, Washtenaw and Wayne, was held in Detroit on February 20th of this year. There were 155 physicians in attendance. During the morning session there was a very interesting symposium on "Croupous Pneumonia," and the afternoon session was made lively by a symposium on "Appendicitis," which brought out a most instructive discussion. In the evening a dinner was served which was attended by nearly 160, and during the feast of reason which followed, every county was heard from by some representative present. It was decided to make the Councilor meetings an annual event and Ann Arbor, Michigan, the home of the Washtenaw County Society, was decided on as the place of meeting for next year.

The Board of Directors have given the matters of the society their earnest thought and attention during the year.

On the whole the year has been a successful one, and I believe that much of the success is due to the untiring work of the program committee and particularly to its energetic chairman, Dr. Hirschman.

The president has endeavored to do his share of the work by attending the meetings of the society, and also those of the board of

directors regularly, and by carrying out such suggestions as presented themselves from time to time. It was my pleasure to be present at all of the meetings and I feel that I profited much by this privilege.

I now take pleasure in calling to the chair as my successor in office, Dr. A. E. Carrier.

THIRD COUNCILOR DISTRICT.

The Third Councilor District Medical Meeting held at the Sanitarium in Battle Creek, October 18, was in every particular an unqualified success. More than two hundred doctors were in attendance, coming not only from the district itself, which was well represented, but from all parts of the state as well.

The program, consisting largely of clinics, was well carried out. Many important cases were presented. Dr. J. H. Kellogg threw open his perfectly appointed operating rooms and did several surgical operations, demonstrating his new method of round ligament shortening, showing how easy it is to locate the ligaments, also demonstrating his method of uterine curettage, followed by cauterizing with live steam, his practical perinorrhaphy, cholecystotomy, etc. Dr. J. F. Boynton removed the nasal septal cartilage by submucous resection—local anesthesia. Dr. R. D. Sleight did a strabismus operation and a very beautiful one for transplanting pterygium. Dr. W. H. Haughey demonstrated the use of his Eureka suture by showing results in a recently operated hernia closed with it, and a case of serious cut from point of chin to angle of jaw with suture in situ, after which by the courtesy of Dr. Kellogg he closed a laparotomy incision, thus demonstrating his method of introducing the suture.

The above surgical work, together with the large, varied and interesting clinic presented by Drs. Kingsley, of Centerville, Doyle, of Augusta, et al., completely filled the entire time of the morning session.

At 3:00 p. m. the following scientific program was carried out:

"The Significance of Itching and an Analysis of Methods Suggested for its Relief," Dr. A. P. Biddle, Detroit.

Calhoun County—

"Reflex Convulsions of Children, and the Duty of Physicians to Prevent Occurrence as Well as Treat," Dr. A. H. Burleson, Tekonsha.

Cass County—

"A Case of Intestinal Obstruction," Dr. W. M. McCutcheon, Cassopolis; "Conservative Surgery," Dr. M. P. White, Dowagiac.

Eaton County—

"Pregnancy, Diagnosis; Hygiene of Pregnancy; Delivery and After-Treatment," Dr. F. H. Weaver, Charlotte.

St. Joseph County—

"Differential Diagnosis of Common Abdominal Diseases," Dr. L. K. Slote, Constantine.

Each paper was a triumph in its line and received well merited discussion. After the scientific work was finished, guides were provided, and all who wished to do so formed parties, and were conducted around the wonderful Battle Creek Sanitarium, where many saw for the first time the immensity of the institution, the comprehensive nature of its work, and the perfection of its appointments.

At 7:00 p. m. all were taken to the beautiful dining-room on the sixth floor, where a sumptuous vegetarian banquet was enjoyed. Some very thoughtful and exceedingly appropriate remarks were here made by Dr. David Inglis, president of the Michigan State Medical Society. He called attention to many things doctors should do, not failing to give credit where credit was due for what already had been done. These remarks brought out others from Dr. J. H. Kellogg and Dr. Eugene Miller, of Battle Creek, and Drs. M. Willson, of Port Huron; W. T. Dodge, of Big Rapids; B. H. McMullen, of Cadillac; A. E. Bulson, of Jackson; A. H. Rockwell, of Kalamazoo; A. P. Biddle, of Detroit, and R. H. Spencer, of Grand Rapids.

After which, amid a general hand-shaking and well wishes, the exercises came to a close. Many were the compliments received by the promoters of this meeting, all declaring that the first meeting of the Third District was an unqualified success, comparing favorably with any yet held in the state.

PATENT NOSTRUMS.

The following resolution, proposed by Dr. A. S. Kimball, of Battle Creek, were adopted at the meeting of the Third Councilor District, Oct. 18, at Battle Creek.

Whereas, The American people are being daily humbugged, robbed and poisoned by venders of patent nostrums

and that, largely through the medium of the press; and

Whereas, Through their fearless, scathing and denunciatory editorials, their concise analyses and clever exposures by their contributors, *Collier's Weekly* and *The Ladies' Home Journal* are doing immeasurable good in their praiseworthy campaign against this "American Fraud," be it

Resolved, That this meeting of the Third Councilor District of the Michigan State Medical Society extend its heartiest thanks and most earnest commendations to P. F. Collier & Son and Curtis Publishing Co. for this splendid work; and be it further

Resolved, That copies of these resolutions be furnished the editors of *Collier's Weekly*, *The Ladies Home Journal*, *The Journal of the American Medical Association* and *The Journal of the Michigan State Medical Society*.

Medical News.

Charles Bowman Morden, M. D., of Pigeon, was married to Miss Jessie Louise Strong at Adrian, Mich., Oct. 10. 1905.

Patience S. Bordeaux, M. D., was married to Henry N. Sisco at Grand Rapids, Sept. 6, 1905.

Geo. Monroe Livingston, M. D., was married to Miss Mabel Augusta Joy at Albion, Mich., June 28, 1905. Address Manistique. Fred Hopkins Harris, M. D., of Kinderhook, Mich., was best man.

W. H. Hutchings, M. D., of Ann Arbor, has removed to 50 Lafayette ave., Detroit.

Augusta Rosenthal Thompson, M. D., of Traverse City, has opened offices at 26 Bagge st., Detroit.

Warren P. Elmer, M. D., who was assistant in Internal Medicine at the University of Michigan, has this fall been appointed instructor in medicine in the University of St. Louis.

Allen Roy Cooper, M. D., Banfield, was married Oct. 3, 1905, at Battle Creek to Miss Verna Davis.

Lewis O. Ludlum, M. D., of West Branch, Mich., died at Ann Arbor, Oct. 9, aged 70.

Cholera is reported in Warsaw, Lodz and Lomsha, three districts of Russia. There were 27 cases and 17 deaths between Sept. 1-10.

One hundred monkeys have been shipped to Breslau for Prof. Neissler's experiments on syphilis.

During the week ending Sept. 2 there were 70 cases of cholera in Manila with 56 deaths. In the following week there were 78 cases and 69 deaths. Up to Oct. 14 there had been 713 cases in the Philippines with 553 deaths.

Twelve milk dealers in Boston and one vinegar manufacturer were recently fined \$10 each for adulterating their produce.

Edward Erskine, M. D., of Rogers City, died Aug. 10, 1905.

Dr. Frank K. Owen, of Ypsilanti, died Oct. 14, 1905.

Dr. Minta Proctor Kemp has removed from Sault Ste. Marie, Mich., to 26 Bagg street, Detroit, where she will continue general practice. Dr. Kemp was a member of the staff of the Northern Michigan Asylum for several years before taking up practice at Sault Ste. Marie.

Dr. R. J. Conroy, of Battle Creek, recently returned from Ireland and London.

Drs. Nelson McArthur, Robt. A. Jamison and W. E. Wells, all of Detroit, sailed recently for Europe where they expect to take post-graduate work.

Dr. Ray E. Stone, of Detroit, has gone to Chechuahua, Mexico, to take charge of the hospital of the DeLoies Gold Mining Co.

Dr. W. K. West, Michigan delegate to the American Medical Association, has resigned his position on the Calumet & Hecla medical staff and accepted the position of Chief Surgeon of the Copper Range Mining Company, and has removed to Painesdale, Mich., their headquarters.

Professor Charles B. Nancrede, of the depart-

ment of medicine and surgery in the University of Michigan, read a paper, by request, before the meeting of the White River and White Mountains Medical Associations, held Sept. 13th, 1905, at the Dartmouth Medical College Hospital (the Hitchcock Memorial Hospital). Dr. Nancrede holds the chair of surgery in that school, as well as the same one in the University of Michigan. The subject was "Eight Cases Illustrating the Chief Points in the Surgery of the Large Bowel."

Miscellaneous.

CHANGES IN MEMBERSHIP.

Sept. 15 to Nov. 1.

NEW MEMBERS.

Lindgreen, Ilmar, Neguane.
 Bonnaville, A. E., Alpena.
 Goodman, N. A., Harvard.
 Jacobson, L. C., Sheridan.
 Fratic, F. J., Greenville.
 Lewis, Geo. H., Greenville.
 Fogleson, M. P., Harvard.
 English, Wm., Saginaw.
 Monfort, I. N., Ithaca.
 Monfort, Willard, Ithaca.
 Gleason, J. F., Detroit.
 Downing, D., Detroit.
 Buesser, F. J., Detroit.
 Layton, M. A., Woodmere.
 Lawrence, H. P., Detroit.
 Cummings, R. B., Detroit.
 Humber, A. M., Detroit.
 Nester, Martin H., Metz.
 Cudworth, Linn M., Perry.
 McKnight, E. E., Alpena.
 Bell, S. J., Alpena.
 Burnam, D., Freemont.
 Lininger, J. W., Gladwin.
 Morse, J. F., Battle Creek.
 Ladd, L. F., Martin.
 Jones, B. W., Vulcan.
 Cruise, S. E., Iron Mountain.
 Carpenter, W. T., Iron Mountain.
 Cameron, J. D., Iron Mountain.
 Hebert, Per., Iron Mountain.
 LeBaron, R., Pontiac.
 Clarke, Homer, Pontiac.
 Case, James S., Battle Creek.
 Loust, E. H., Marshall.
 Morris, Harry, Sebawaing.
 Johnston, Henry, Caseville.
 Lyman, M. D., Bad Axe.
 Shaver, F. A., Grindstone.

Change of Address.

Eaton, R. R., Grand Rapids.

Cooley, T. B., Detroit.
 Maddox, W. H., Wauseon, Ohio.
 While, Julia A., Loma Linda, Cal.
 Vaughan, J. W., Detroit.
 Vaughan, V. C., Jr., Detroit.
 Rosenthal-Thompson, Augusta L., Detroit.
 Smith, Virginia T., Los Angeles, Cal.
 Graun, Frank A., Duluth, Minn.
 Gleason, S. M., Greenville.
 Hutchings, W. H., Detroit.
 Gillett, Jesse, Wixom.
 Smith, M. B., Fenton.
 Best, H. M., Edmondton, N. W. T.
 Gibson, E. B., Ann Arbor.
 Keeler, C. E., Ann Arbor.

IN MEMORIAM.

FRANK K. OWEN, M. D.,
 Ypsilanti, Mich.

Frank K. Owen was born in Sweetwater, Tenn., Sept. 26, 1843. His family moved to Missouri early during the Civil War, and the young man enlisted in the 43rd Missouri Volunteer Infantry, and saw service in those days when neighbor and friend fought each other. He was several times wounded, but not seriously; however, in after years, he felt the results of the exposure.

At the close of the war he read in the office of a local physician for some time, and then entered the University of Michigan, where he graduated in 1871; married Miss Georgiana Webb, daughter of a well-known physician of Eastern Michigan, and settled in Ypsilanti.

His rise was rapid, owing to his thorough knowledge of his profession and to his genial ways and hearty sympathy. He had in a remarkable degree that intuitive genius of the successful surgeon; the accuracy, the coolness and the quick perception so necessary in an emergency; and won the respect and confidence of his fellow practitioners, which he held until the last day of the thirty-four years of his practice.

At the outbreak of the Spanish-American war, May, 1898, he was commissioned lieutenant and assistant surgeon of the 31st Michigan Volunteer Infantry; was promoted to captain and assistant surgeon in the fall of 1898, and served with his regiment during the war.

During the last year of his life he attended to his practice as usual, but pain and illness were fast undermining his constitution. In June he took an extended trip of about two months in the mountains of Western Canada, returning in August with the hope of relief, but after a few weeks of active practice, which he kept up until within four days of the end, he breathed his last in St. Mary's Hospital, Detroit.

His was a life of mercy and of usefulness, of which his widow and two sons may well be proud.

EDWARD ERSKINE, M. D.

Rogers City, Mich.

The death of Dr. Edward Erskine, which occurred at Rogers City on Friday, Aug. 11, was almost tragic in its nature, and has cast a gloom over the whole county of Presque Isle, where the doctor had resided for the past twenty-six years, and where his face was familiar in every home.

While conducting the teachers' examination at about 2 p. m. he was observed to go to an open window. A minute afterwards he left the room without saying a word as to being ill, went home, administered some remedy to himself, and apparently recovered; however, in about an hour he was seized with another attack, this time complaining of a sharp pain across the chest; became unconscious, and when medical aid reached him life was extinct.

Dr. Erskine was born at Port Sanilac, Nov. 18, 1854, was a graduate of Hillsdale College, and in early life enlisted in the United States Army, shortly afterwards receiving injuries which necessitated his discharge, and for which he was granted a pension. He married Miss Mary Suzula, of Paris, Michigan, in 1877, and she survives him.

In 1879 he moved to Rogers City, where he taught in the Union school for some years. He then took up the study of medicine and graduated in the Michigan College of Medicine, in 1891, since which time he has kept in the advance of his profession, having taken several post-graduate courses in Chicago.

Dr. Erskine has been County School Commissioner of Presque Isle County for eight years and County Physician for a like time, and it would be difficult indeed for anyone to obtain the confidence the people reposed in him.

Never before in the history of Presque Isle County has there been presented at any funeral such beautiful and costly floral wreaths, shields and other emblematic designs as were literally piled on the casket of the late Dr. Edward Erskine by the various fraternal orders, the Presque Isle County Medical Society, the teachers of the county and friends of the departed and much beloved doctor.

Correspondence.

ASSOCIATION OF STATE MEDICAL JOURNALS.

CIRCULAR NO. 1.

San Francisco, Cal., Nov. 10, 1905.

Editor: The Proprietary Association of America, having a very strong organization, has established a Press

Bureau and is now fighting the American Medical Association and the medical profession. Collier's Weekly for November 4th publishes information showing that every newspaper in the country is muzzled by this Proprietary Association.

Undoubtedly the nostrum interests, which will be hurt by the investigations of the Council of Pharmacy and Chemistry of the A. M. A., will align themselves with the "Proprietary Association," and will endeavor to hurt the medical profession and particularly the American Medical Association, if they possibly can. It, therefore, seems to me that it is imperative that we, representing state medical organizations, should make known the principal facts disclosed by Collier's Weekly. All of our members will not see Collier's; the newspapers will either be silent or will attack us and our association; our members, or certainly most of them, will not be aware of the actual facts unless the information is disseminated through our journals.

The fight promises to be an exceedingly bitter one, and it seems to me that we will fail in our duty if we do not actively support the A. M. A. and its Council on Pharmacy and Chemistry, and Collier's Weekly, and do not place before our members the essential facts. Sympathy will not win this fight, but publicity may.

Respectfully,
 PHILIP MILLS JONES,
 President A. S. M. J.

INTERNATIONAL MEDICAL CONGRESS.

I am pleased to announce that final arrangements have been perfected for the tour of the American party to the International Medical Congress at Lisbon, April, 1906.

The party will sail on Saturday, April 7, on

the North German Lloyd steamer "Koenig Albert" for Gibraltar, visiting Algerciras, Seville, Cordova, etc., spend a week in Lisbon during the Congress and returning to New York on Wednesday, May 9. This trip may be made comfortably in a first-class steamer both ways, all expenses paid, including board and lodging while in Lisbon, and entertainment at other points, for \$300.00.

A number of side trips are being added and tickets will be good returning through Europe if desired at a slightly increased cost.

Following is a list of those who have joined the party:

Lewis S. McMurtry, M. D., Louisville.
 Nicholas Senn, M. D., Chicago.
 J. D. Griffith, M. D., Kansas City, Mo.
 W. F. Southard, M. D., San Francisco.
 Frank P. Norbury, M. D., Jacksonville, Ill.
 W. T. Corlett, M. D., Cleveland, O.
 C. H. Hughes, M. D., St. Louis, Mo.
 R. T. Morris, M. D., New York City.
 A. Vander Veer, M. D., Albany, N. Y.
 Jos. M. Mathews, M. D., Louisville.
 J. B. Murphy, M. D., Chicago.
 Fenton B. Turck, Chicago.
 Jas. E. Moore, M. D., Minneapolis, Minn.
 Ramon Guiteras, New York City.

Dr. John H. Musser (Philadelphia) is chairman of the National American Committee, and Dr. Ramon Guiteras (75 West 55th street, New York City) is the secretary, to whom all applications for membership and communications in regard to the presentation of papers should be addressed.

All those who contemplate the trip are cordially urged to make reservation with the writer at once in order to secure desirable berth on the steamer and good hotel accommodations. Program of the itinerary upon request.

CHAS. WOOD FASSETT, St. Joseph, Mo.

THE LADIES' HOME JOURNAL PHILADELPHIA.

A. S. KIMBALL, M. D., BATTLE CREEK.

Dear Sir—Your letter enclosing a preamble and resolutions adopted by the Third Councilor District of the Michigan State Medical Society has been received, and I thank you sincerely for sending it. It is very gratifying to Mr. Bok to know that his attempt to expose some of the "patent-medicine" evils is approved of so generally throughout the country.

Very truly yours,
 WM. V. ALEXANDER,
 Managing Editor.

Book Notices.

A **MANUAL OF CHEMISTRY.** Third Edition. Revised throughout. For the use of students of medicine. By Arthur F. Duff, B. Sc. (London), F. R. C. D., F. I. C., Physician to St. Mary's Hospital and Lecturer on Medical Jurisprudence in the Medical School, and Frederic James M. Page, B. Sc. (London), F. I. C., Lecturer on Chemistry and Physics to the London Hospital Medical College, Examiner on Chemistry and Physics to the Society of Apothecaries, London, etc. Illustrated. W. T. Keener & Co., Chicago, 1905. Cloth, \$1.75.

A very compact little volume, intended as a guide to the study of chemistry. It is arranged especially for the medical student—leaving out all the many details contained in the larger works. The things that it is important for a well read physician to know are set forth in a pleasant and clear manner. The book is thoroughly revised and illustrated. Part one is introductory. Part two takes up the non-metallic elements individually and part three the metallic ones and their principal compounds. Part four is organic chemistry—and treats this difficult subject very thoroughly, going into the physical part of this work. The methods of determining the boiling and melting points and stereo-isomerism have been taken up in this edition. A chapter has also been added giving the composition of various recent drugs—as aspirin, heroin, mesotan, etc. The volume is very neat, attractive and useful.

PHYSICIANS' POCKET ACCOUNT BOOK. By J. J. Taylor, M. D., Editor of the Medical Council. \$1.00. Published by The Medical Council, Philadelphia, 1905.

This is a very convenient pocket account book with an alphabetical index in the front and 200 pages for accounts. It is simple, plain and economical in the matter of space. There are many useful rules and hints embodied in the front and back of the book, tending to make bookkeeping accurate and simple.

HYGIENE AND PUBLIC HEALTH. New Revised Edition. By B. Arthur Whiteligg, C. B., M. D., B. Sc. (London), F. R. C. P., D. P. H., and Geo. Newman, M. D., D. P. H., F. R. S. E. Illustrated. W. T. Keener & Co., Chicago, 1905. Cloth, \$1.75.

This little book goes quite minutely into the subject of public health and hygiene. It includes a general treatise on all those important things which so much determines the public health of a place—air, meteorology, water, taking up in detail the question of good pure water and discussing the various methods of obtaining it, and the action of the mineral salts in water. The food question is thoroughly discussed—including remarks upon tubercular meat and preservation of milk. Soil, ventilation, and sewage are considered at length—then follows the disposal of the dead and measures to be taken in fighting animal

and vegetable parasites. The different infection diseases are dealt with separately and at length. The book closes with several chapters on health laws—old and new, and is a credit to its author, showing a large amount of study and observation.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF METABOLISM AND NUTRITION. By Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfurt-on-Main. Part VII. Diabetes Mellitus. Authorized American Translation. Edited by Boordman Reed, M. D. Translated by Florence Buchanan, D. Sc. and I. Walker Hall, M. D. New York. E. B. Treat & Co., 1905. Cloth, \$1.50.

Dr. Von Noorden needs no introduction to the profession in America. He is recognized as being the foremost investigator along the lines of disorders of metabolism. He has added immensely to our field of knowledge and especially is this true with regard to diabetes mellitus. Recently he delivered a course of lectures in Bellevue Hospital Medical College and chose for his subject diabetes mellitus. Comparatively few could attend those lectures, but they are now presented to us in this little book. Thus every physician is able to procure for himself those masterful lectures at a nominal cost. Von Noorden is a forceful writer—and a master hand—and the translators have succeeded in giving us a very readable rendering of this work.

NEUROTIC DISORDERS OF CHILDHOOD. By B. K. Rachford, M. D., Professor of Diseases of Children, Medical College of Ohio, Univ. of Cincinnati, etc. New York, E. B. Treat & Company, 1905. Cloth, \$2.75.

This book contains papers published by Dr. Rachford for several years in the *Archives of Pediatrics* entitled "Some Physiological Factors of the Neuroses of Children." To these have been added chapters on Gastro-Intestinal Toxaemias, Auto-Intoxication and Chronic Systemic Bacterial Toxaemias.

Part two deals with the individual nervous disorders, fevers, eclampsia, laryngitis, striditus, tetany, enuresis, migraine, recurrent vomiting, epilepsy, chorea, hysteria, asthma, habit, etc. Each subject is taken up separately and discussed with regard to etiology, symptomatology and treatment. The book is a well written one and fills an important place in the range of medical books.

PRACTICAL THERAPEUTICS. Eleventh revised edition. By Hobert A. Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Member of the Committee of Revision of the United States Pharmacopoeia of 1905. Lea Brothers & Co., Philadelphia and New York, 1905. Cloth, \$4.00.

This text book is admitted by all to be a stand-

dard. It is intended primarily for medical students, to fill the gap left by the other text books on materia medica and therapeutics. Before the advent of this book the student was left in ignorance, more or less, as to the indications for the use of drugs. That is all changed now, for this book deals mostly with the indications for the use of different remedial agents. It gives a general consideration of therapeutic measures, of the different pharmacopœial remedies and many of the newer ones not yet given a place in the U. S. Pharmacopœia, such as adrenalin, thymus gland, and thyroid extract which are very carefully described. Then comes a general consideration of remedial agents other than drugs, and lastly the treatment of the different diseased conditions arranged in alphabetical order. The present edition is certainly a valuable improvement over the older ones.

INTERNATIONAL CLINICS. A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by A. O. J. Kelley, A. M., M. D., Philadelphia. Volume III, Fifteenth Series. Philadelphia and London, J. B. Lippincott Company, 1905.

The third volume of *International Clinics* is well up to the standard set by the previous volumes. It is well illustrated and contains articles on such subjects as Radiotherapy, Action of Metallic Ferments of Metabolism, Serumtherapy, Mucous Colic, Ulcer of the Stomach, Addison's Disease, Parafine Injections, Poliomyelitis, Paralysis Agitans, Hemiplegia, Locomotor Ataxia, Syphilitic Necrosis, Hay Fever, etc. These articles represent the observation of some of the best men in the profession both here in America and abroad. The book is published in the form of a collaboration of papers of unusual strength and force.

CLINICAL METHODS. Ninth Edition, seventeenth thousand. By Robert Hutchinson, M. D., F. R. C. P., Assistant Physician to the London General Hospital, and Harry Rainy, M. A., F. R. C. P., Ed., F. R. S. E., Examiner in Medicine and Clinical Medicine, St. Andrew's University, Chicago, W. T. Keener & Co., Publishers, 1905. Cloth, \$2.50.

This volume of 634 pages is a very complete treatise on clinical methods, both laboratory and bedside. It gives a simple system of case taking, including history, physical examination, etc. The chapter dealing with the general appearances of the patients is a valuable one and arranged in a way to get an excellent general impression of the patient. In the chapter on auscultation of the chest are numerous useful diagrams explanatory of the different sounds, tending to make this phase of physical examination very clear indeed. The book contains also a chapter on the physical examination of children which anyone who has much work with them will appreciate. The last chapter is devoted to the composition and pre-

paration of the various clinical reagents and will be useful for the simple reason that the information contained in this chapter is usually difficult to find off-hand.

BIOGRAPHICAL CLINICS, Vol. III. The Influence of Visual Function upon Health. By George M. Gould, M. D. P. Blakiston's Sons & Co. Philadelphia. 1905.

This is volume 3 of Gould's interesting study of the probable effect of visual defects upon the lives and works of great men who have gone before. In this volume he studies the pathological manifestations in the lives of John Addington Symonds and of Taine. He draws very interesting clinical and pathological pictures and attributes the manifestations to various forms of eye defects. Other chapters are devoted to a consideration of migraine, scoliosis in school children. Slanted hand writing and its effects. Right and left predominance of either eye and its effects. Accommodation in Presbyopia, and other more or less interesting subjects bearing upon the effect of various ocular anomalies upon the general health. There are also two interesting chapters by other writers. Chapter 4 by Simeon Snell, F. R. C. S. (Edin.) is entitled, "Eye Strain as a Cause of Headache and other Neuroses." Chapter 5, Slight Errors of Refraction and Their Influence on the Nervous Symptom, is written by C. Ernest Pronger, F. R. C. S. These are both very interesting and instructive dissertations. Taken all in all one can truly say that while one cannot agree with the extreme views held by the author the books contain a vast amount of information which is interesting to the medical man and much that is instructive. The book is well bound and clearly printed with good-sized type on a paper of excellent quality. The illustrations are interesting and well executed.

BOOKS RECEIVED.

A Text-Book of Physiology. William H. Howell, John Hopkins University. W. B. Saunders & Company, Philadelphia, 1905.

A Manual of Diseases of Infants and Children. John Ruhrah, College of Physicians and Surgeons, Baltimore. W. B. Saunders & Company, Philadelphia, 1905.

A Treatise on Diagnostic Methods of Examination. H. Sahlu, Bern. W. B. Saunders & Company, Philadelphia, 1905.

A Treatise on Diseases of the Skin. Henry W. Stelwagon, Jefferson Medical College, W. B. Saunders & Co., Philadelphia, 1905.

Transactions of the West Virginia State Medical Association. Thirty-eighth Annual Session. Wheeling, 1905.

The Journal of Physical Therapy. A practical monthly devoted to Roentgen diagnosis, Roentgen therapy, thermotherapy, hydrotherapy, mechanotherapy, medical gymnastics, dietetic and climatic therapy, hygiene, etc. Edited by Gustavus M. Blech, M. D., New Era Building, Chicago.

Progress of Medical Science.

MEDICINE.

Modern Problems of Nutrition.—Prof. Von Noorden, Germany (*Journal A. M. A.*, October 28), reviews the history of several of the problems of metabolism in recent years. He states that a number of problems, of interest alike to the physician and to the pathologist were left unsolved during the earlier periods of quantitative investigation, and that it is only now that, thanks to the better technic of recent times, exact methods are available for their estimation. He takes up the metabolism of energy and states that the daily food must have certain caloric values if the weight of the body shall neither increase nor diminish. With the increase of muscular work the amount of energy consumed increases in proportion. Children require a relatively high, and old people a relatively low, exchange of energy. Von Noorden emphasizes the necessity for further extended observations of the personal equation in this matter in order to provide a clear "mathematical" insight into the condition now designated by the term individuality. He referred to the experiments of Rubner and Pflueger, which tend to show that when the food contains an excessive quantity of proteids the energy exchange rises considerably above the average. He mentions briefly several experiments made by himself and his assistants, and states that among other things one important fact has been established, viz., that increase in energy exchange follows the administration of thyroid gland substance. He discusses metabolism energy in people who are run down by chronic disease or by insufficient nourishment and the energy exchange in fevers and in diabetes mellitus. He says that the exact form in which nitrogen is retained in the body is still entirely unknown and that a knowledge of this would throw some light on the changes which molecules of albumin undergo in the body. He reviews some of the work which has been done recently in physiologic chemistry, referring especially to the amino acids and to glycolol. He concludes by stating that great problems still await solution and that medical science looks to America for many enthusiastic workers in this field.

Convalescents; Their Care from the Medical Standpoint.—Lee K. Frankel says that notwithstanding the strides that have been made within the past two decades, in sanitary science, in the practice of medicine and surgery, in the betterment of living conditions, and in the general improvement in the physical status of all classes of the population, it is nevertheless a fact

that in only a few diseases has the death rate been lowered. A study of the census reports shows that while deaths from cholera infantum, diphtheria and consumption were less in 1900 than in 1890, the reverse was the case for nearly all other diseases. This state of affairs the author attributes largely to the fact that in hospital work and in private practice among the lower classes it is impossible for economic reasons to keep the patients under treatment until they are fully restored to health and strength, and in this way a large class of "half-cured" people is developed. These are in a condition of lowered vital resistance so that they easily fall a prey to serious illnesses. The remedy lies in the establishment of suitable convalescent homes, which shall not be like hospitals but shall resemble as nearly as possible the normal home. For this purpose the country is most suitable, and where land is cheap such institutions should be built on the cottage plan. At the same time, the patient's family must be provided for in his absence, and in this connection the author speaks of the Winifred Masterson Burke Relief Foundation and the Loeb Memorial Home for Convalescents. He urges that the benevolent work of these private institutions be taken up by the State, and states that this would be the best prophylactic against disease of all sorts.—*Medical Record*, October 28, 1905.

A Philippine Fever.—Two cases of a somewhat temporary febrile affection suggesting typhoid or malaria and the discovery of a peculiar organism associated with it are reported by H. D. Bloombergh and J. Morgan Coffin, assistant surgeons U. S. A. (*Journal A. M. A.*, October 28). The fever was accompanied with general malaise and in one of the cases with marked muscular pains. It started with chills, but sweats were lacking. The organism was found in the red blood cells. It is a motile hemocytobion, approximately 2.5 microns long, 1 micron broad, unpigmented, and refractive like the malarial parasite. Its movements are of two kinds, the first depending on its rotation on one or other of its two axes and the other an independent movement from one position to another within the cell. The motion ceased after several hours observation and in specimens kept over night a few narrow ring-shaped bodies were found. This parasite was probably first described by Asst. Surgeon H. M. Smith, U. S. A. (Surgeon General's Report, 1904), and the reason it has not been more generally recognized in the peculiar transient fever that occurs in some portions of the Philippines without the presence of the malarial parasite, is its small number in the blood. Smith's cases were reported under the head of estivomalarial fever, though he remarks on the peculiarities of the organism and its possible distinctness.

SURGERY.

The McGraw Ligature.—A. J. Ochsner, Chicago (*Journal A. M. A.*, October 21), reports his experience with the McGraw ligature since December, 1902, when he saw the method demonstrated by its inventor. He has used the method 156 times and has come to the following conclusions: "1. Anastomosis with the McGraw elastic ligature can be accomplished in a satisfactory way (a) between stomach and intestines; (b) between intestine and intestine. 2. The opening can be made any desired length. 3. It can be made without carrying infectious material from the lining of the stomach or intestine to the peritoneum. 4. It can be performed quickly. 5. It requires no special skill or ingenuity. 6. The patient shows very little, if any, shock after the operation. 7. The patients are relatively very free from pain, and can usually sit up in bed with the aid of a headrest a few hours after the operation. 8. The method should not be employed in making a pyloroplasty. 9. It should not be used in making a cholecystenterostomy." Ochsner quotes some of the special directions of Dr. McGraw, and has formulated the method in eleven steps as follows: 1. A round rubber cord, 2 mm. in diameter made of the best material, should be used. 2. A posterior row of Lembert sutures is applied. 3. A long straight needle, armed with the rubber ligature, is passed into the lumen of the intestine and out again at the desired distance, from 5 to 10 cm. away from the point of introduction. 4. While an assistant holds the intestine the surgeon stretches the rubber in the needle, and when quite thin draws it rapidly through the intestine. 5. The same step is repeated through the stomach. 6. A strong silk ligature is placed across and underneath the rubber ligature between the latter and the point where the stomach and the intestine come together. 7. A single tie is made in the rubber ligature after the latter has been drawn very tightly. 8. The silk ligature is passed around the ends of the rubber ligature, where they cross, and is tied securely three times. 9. The ends of the latter are released and cut off, being held by the silk ligature. 10. The Lembert suture is continued around in front until the point of its beginning is reached, where it will be tied. 11. Care must be exercised to prevent tying the rubber ligature too far backward and thus getting behind the posterior row of Lembert sutures. He mentions, as a special help in following these directions, the illustrations of the article of Dr. H. O. Walker in *The Journal A. M. A.*, Jan. 17, 1903, p. 166. One hundred and twenty-four cases

in which this method of operating was carried out at the Augustana Hospital are tabulated and the causes of death in the fatal cases discussed.

A Plea for Local Anesthesia in the Radical Cure of Inguinal Hernia, Based on a Study of 300 Cases.—John A. Bodine has operated on 284 patients, with 300 hernias, under local anesthesia, without a death or a suppurating wound. By means of Schleich's infiltration the amount of cocaine is reduced to a minimum and limited to a small area, producing acute local anemia, effectually retaining the fluid in one spot. Cocainization of a sensory nerve trunk, abolishing pain sensation in the region supplied by it, renders it possible to operate for hernia by its use. The operative area is superficial, and the region restricted by the anatomy of the parts. In strangulated hernia local anesthesia does not increase the shock, while general anesthesia is often too great a load to be borne. The local anesthetic permits of the application of hot towels to a possibly gangrenous intestine for some time, in order to determine whether it will react. The operation does not give rise to the danger of injury to the nerve fibers. The danger to a line of deep sutures from vomiting is done away with. There is no danger of cocaine poisoning with the small dose necessary—that is, one-half grain injected intermittently throughout an hour. Morphine given after the operation would act as an antidote were poisoning possible. The operation is more thorough because of the absence of haste and the lack of need to save the patient pain. There are no evidences of pain during the operation. The cocaine solution should be made fresh. The solution is one-fifth of one per cent. for infiltration of skin and nerve trunks, and for subdermic infiltration half this strength is used. The line of skin incision should be infiltrated throughout its extent sufficiently tightly to maintain the local anesthesia for an hour. The aponeurosis of the external oblique requires no infiltration. It should be incised over the situation of the underlying ring; the ilioinguinal nerve will be exposed by retracting the flaps, and its trunk is then cocainized by a few drops of the solution. The incision may be carried painlessly into the external ring, and the flaps reflected to expose Poupart's ligament and the conjoined tendon. The iliohypogastric, if found, may now be cocainized. The margins of the internal ring are infiltrated. A line of infiltration along the long axis of hernia protrusion permits a clear cut through the hernial sac and coverings. The neck of the sac is infiltrated, dissected away from the underlying cord, ligated, and amputated. The genitocrural nerve is cocainized. The sac is dissected away from the cord, and the operation completed. Operation on the female is easier than the male.—*Medical Record*, October 21, 1905.

OPHTHALMOLOGY.

Arabian Ophthalmology.—J. Hirschberg, Berlin (*Journal A. M. A.*, October 14), gives an interesting account of the Arabian literature on the specialty of ophthalmology. He shows that while the Greeks, their predecessors in this line, produced in the thousand years from Hippocrates to Paulos, only five works on ophthalmology, none of them by a specialist, the Arabians, in the shorter period of 500 years from 800 A. D., brought out over thirty text-books, the majority by specialists, and fourteen of which exist to-day. There were among the Arabs special divisions in general hospitals for the ocular disease and special eye clinics—institutions not to be found in Europe before the end of the eighteenth century. We are indebted to the Arabs for our descriptions and nomenclature of the anatomy of the eye, for the first attempts at solving the comparative anatomy and physiology of the organ of vision, for the first recognition of refraction, and for still other matters in which they were in advance of Western Europe by hundreds of years. The opinion of August Hirsch that the Arabs did not contribute to the progress of ophthalmology is incorrect; their contributions are remarkable and should not be ignored. They were the only masters of the specialty in medieval times.

Eye Defects Associated with the Development of Puberty.—K. Wheelock describes seven cases of defective vision occurring in boys and girls shortly before the age of puberty. They are characterized by great loss of vision, marked limitation of the visual field, and an eye ground varying from the normal to frayed blood vessels with a "shot silk" fundus, while the general health of the patient remains good. These phenomena he believes are due to change in the nerves and blood stream incidental to the development of the reproductive organs, as treatment is of little avail and recovery is not complete until menstruation has been established in girls and the seminal function in boys. Points that the author particularly emphasizes are: The existence of defective vision for distance and reading, limitation of the field for form and color, the age of the patients from eight to ten years, the absence of chlorosis or hysteria, the existence of a leucocytosis, and the recovery of normal sight both for reading and distance with much contracted field. The treatment involves restoration of hemoglobin and nerve force by iron, strychnine and manganese. The author suggests that there may be some connection between this

condition and chorea.—*Medical Record*, October 21, 1905.

The Ocular Origin of Migraine.—George M. Gould, Philadelphia (*Journal A. M. A.*, October 28), notes the confusion that exists in regard to the conception of migraine in the literature and is especially severe on the neurologists and others who have not accepted eyestrain as its general prevailing cause. Of all atypical diseases, he says, migraine is, by all odds the leader. This is, first, because its cause, eyestrain, is of a thousand different kinds and intensities, and second, because vision is so bound up in some way with almost every physiologic activity, every psychic and bodily function, that the symptoms produced by its derangement are most multifarious. The infinitely varied morbid cause or seed is planted in an infinitely varied soil. He gives the history of the eyestrain theory of its causation, and quotes from a large number of writers who have reported cures of the condition by correction of ocular defects by proper fitting of glasses. He says, "I could give the details of perhaps a thousand cases of 'migraine' or sick headache cured by glasses. I should say that 90 per cent. of cases are immediately curable, and a large proportion of the rest curable in time, and as soon as the secondary systemic functional effects have been overcome. A few cases are incurable, because these secondary effects have become organic or too chronic to allow any cure. There are also rare cases in which mental reaction has become impossible."

Iritis Tuberculosa.—W. E. Gamble and E. V. L. Brown, Chicago (*Journal A. M. A.*, October 14), reports a case of plastic iritis producing nodules which was identifiable by a process of exclusion and still more by the tuberculin reaction, as tuberculous. The treatment was by repeated injections of Koch's tuberculin and the use of atropin continued over six months and causing disappearance of the ocular conditions. There was evidence of a tuberculous focus elsewhere, to which the eye symptoms were probably secondary, as shown by a persistent rise of afternoon temperature, slight cough and enlarged supraclavicular glands. The afternoon temperature continued after the disappearance of the eye symptoms. The authors give a detailed review of the literature of the use of tuberculin in the eye, and conclude that there is very little question of its diagnostic value. Their own experience leads them to advise the lowest possible dose on account of the profound general reaction they met with from a five mg. injection. Less can be said of its therapeutic value, but they think that many patients, like the one reported, can be helped. The article is illustrated and closes with what appears to be a rather complete bibliography.

GYNECOLOGY AND OBSTETRICS.

Gynecologic Progress.—In his chairman's address before the Section on Obstetrics and Diseases of Women of the American Medical Association at its last session, Dr. C. L. Bonifield, of Cincinnati (*Journal A. M. A.*, October 14), after first noticing some of the needs of the section, discussed several subjects of gynecology in which progress has recently been made. They are not the novelties of a decade ago; as he says recent progress has mainly consisted in appraising at their own true value procedures previously introduced to the profession. Among the subjects discussed during the year is that of retrodisplacements of the uterus, and no ideal method, he thinks, among the many proposed has yet been found. In his opinion, many patients are operated on who would be as well or better treated by painstaking non-operative methods. He favors the Alexander operation when practicable, and describes his own method. He formerly folded the ligaments covered as they are with peritoneum on themselves once or twice, and stitched with catgut. Some of his patients relapsed in six months or a year, and he had nothing but peritoneal adhesions to show for his former operations. Now he strips the ligaments of peritoneum, folds them once, stitches the folds together with chromicized catgut, pushes the folded portions through the slit in the peritoneum and stitches it to the ligaments again toward its distal end, then closing the peritoneum. Cancer of the uterus is another subject that forces itself on the attention, and he has faith in operation based on experience which would encourage him were there no other testimony. Other subjects mentioned in the address are Dr. E. C. Dudley's operation for urinary incontinence, obstetric toxemia, vaginal Cesarean section, and 'race suicide.'

Uterine Fibromata.—T. B. Eastman, Indianapolis (*Journal A. M. A.*, October 21), argues against the probability of the harmlessness of uterine fibromata. He reviews rather extensively the literature of the degeneration of these growths and gives results of his own observations, reporting briefly six cases illustrating the difficulty of diagnosis of pathologic conditions other than the tumor itself. In one of these the patient was not even aware that she had a tumor, much less a degenerating one. He protests against the idea of waiting in these cases for the menopause to effect a cure, and thinks with the low death rate of hysterectomy and the fact that so many of these growths are undergoing dangerous pathologic changes which can not be diagnosed prior to

operation that all fibromyomata should be removed unless there are concurrent conditions rendering the operation inadvisable.

Pulmonary Tuberculosis as an Obstetrical Complication.—C. S. Bacon, Chicago (*Journal A. M. A.*, October 7), finds that statistics indicate that probably from 24,000 to 36,000 pregnant women in the United States are tuberculous at the present time. Formerly it was held that pregnancy had a good effect on existing tuberculosis, an idea doubtless based on clinical observation, as it is observed in a few cases, at the present day, the pregnancy stimulating general nutrition and perhaps inducing a better hygiene, including more rest, etc. In many cases, however, pregnancy has undoubtedly a bad effect on the disease. It may cause its more rapid development or an acute miliary fever may appear, and nausea and vomiting or other gravidal toxemias may increase the danger. In the later stages the pressure of the uterus on the diaphragm may aggravate an already impaired respiratory function. Generally it is the puerperium that shows most markedly the evil effects. If the exhaustion of labor is severe the patient will probably die, if mild, she will go to pieces. Marriage of a tuberculous woman is not excusable; some rare exceptions, however, may be made to the rule, if pregnancy be forbidden to a tuberculous wife. If such a woman, under ideal social and hygienic conditions, with the disease not too far advanced, is extremely anxious for a child and refuses to be dissuaded, we may rightfully, he thinks, consent to care for her in her much-desired pregnancy. In all other cases the rule to forbid pregnancy is valid. In case of the tuberculous pregnant woman, the question arises whether or not to interrupt the pregnancy. The patient's circumstances will largely influence the decision. If the disease is not too far advanced and otherwise ideal conditions exist, the patient can be allowed to go to term. The proper management of labor in a consumptive involves careful watching and prompt interference as soon as signs of exhaustion appear. The management of the puerperium is also of the utmost importance. In the first forty-eight hours the greatest danger is from circulatory disturbances, later, attention must be given to the needs of nutrition and fresh air. Under no circumstances should the consumptive mother nurse her child, and it should not be kept in the same room. Puerperal tuberculosis and puerperal infection may be confused, but the history of the case ought to aid the diagnosis. The complication of the two diseases is, of course, a most serious one. In conclusion, Bacon remarks on the more hopeful aspect of consumption of late years, and its bearings on this subject.

NEUROLOGY.

The Etiology of Tabes; Its Social, Legal, and Therapeutic Consequences.—Feodor Von Raitz attacks the view that tabes is caused by syphilis, and points out the injustice from social, legal, and therapeutic standpoints that is caused to patients by this assumption. He says that those who accept syphilis as the cause of tabes have no difficulty in finding syphilitic evidence in everybody who has tabes. If a patient admits having had syphilis, no further proof is necessary; if syphilis is denied, every disturbance at the genitals, no matter whether it be a specific or a simple urethritis, a vulvar abscess or abrasion, a chancroid or a simple sore, is sufficient evidence of syphilis. If disturbances at the genitals are denied, then any eruption on any part of the body furnishes the proof. And if everything is denied, then the "benefit of the doubt" is used to establish syphilis, and so the hundred per cent. is accounted for and tabes stands as a postsyphilitic disease. He then contrasts the pathology of syphilis and that of tabes, to show that the lesions of the nervous system in the two conditions have nothing in common, the degenerations of the latter disease being foreign to the former. It is also absurd to believe the syphilitic virus can remain dormant, and, furthermore, if tabes were a postsyphilitic disease anti-syphilitic treatment would have a curative effect, but it has been found that the reverse is the case. The author then proceeds to give his reasons for believing that tabes is the result of various etiological factors, prominent among which are sexual excess, toxins of various sorts, injury to the cord by falls, twists, etc., and the use of mercury. A number of cases are cited to illustrate the various phases of the argument.—*Medical Record*, October 21, 1905.

Professional Responsibility in the Care and Diagnosis of Insanity.—Arthur C. Brush (Brooklyn, N. Y.) emphasizes the fact that it is becoming more and more imperative for the physician to detect abnormal mental processes in the young and to advise proper mental and physical means for their correction. He must be particularly conscientious in advising the family when restraint by means of commitment as an insane person is necessary, or when a committee is necessary to take charge of the affairs of a person incapable of managing either through insanity or other causes.—*American Medicine*, October 14, 1905.

Cephalic Tetanus.—J. H. Lloyd, Philadel-

phia (*Journal A. M. A.*, October 7), reports a case of this rather rare variety of tetanus, in which contrary to the usual rule, the facial paralysis was bilateral. As in all other recorded cases of this kind, except one, the original inoculation wound was on the bridge of the nose. He reviews the chief facts of note in cephalic tetanus, and recapitulates briefly the other cases, seven in all, of facial diplegia in head tetanus that he has found in the literature. The peculiar fact that the same infection causes paralysis of one nerve while inducing tetanic spasm in others, is remarked, but can not be very well explained. Autopsy results, he states, are so far negative. The prognosis of head tetanus is a little better than in the usual type, but it is a grave disease with a very high mortality. Lloyd's patient came within the "chronic" group, the symptoms only appearing on the fourteenth day after the injury, and she made a good recovery. The peculiarities of the case, it being the seventh or eighth thus far reported with diplegia, render it of special interest.

Central Ataxia in Childhood.—A. W. Fairbanks, Boston (*Journal A. M. A.*, October 7), discusses the condition occasionally observed in children characterized by muscular inco-ordination, delayed voluntary muscular action, unsteady gait, slow or hesitating speech, occasionally explosive, nystagmus, tremor, involuntary movements, choreiform or otherwise, deficient energy and later paralysis, muscular spasm and contractures. Other less characteristic symptoms are vertigo, headache, optic atrophy, pupillary anomalies, various mental and sensory symptoms, trophic changes in muscles and more rarely, sphincter weakness and cutaneous trophic changes. Some of these symptoms are later than the others, and may mask the earlier symptoms of the disease. Fairbanks thinks tendon reflex anomalies are simply a matter of duration or extent of the central lesion and not essential to the symptom complex. The variations from the original type of Fredreich are remarked, and the author refers to the cases reported by Everett Smith, Nonné, Menzel and Sanger Brown as most typical and interesting of the type here discussed. In the autopsies that have been made nearly all the subjects showed extreme degeneration of the posterior parts of the cord and the posterior nerve roots were more or less degenerated in all. In all but one case there was some atrophy of the medulla and cerebellum and atrophic changes in certain of the cranial nerves. The pathology of the condition is discussed, and he points out that the latest formed portions of the cord are the seat of greatest degeneration. He thinks that the defects indicate a process supervening on a development insufficiency, either of structure or inherent vitality of the nervous system. In Nonné's anomalous case there was general smallness of the entire nervous system without special signs of degeneration.

BACTERIOLOGY AND PATHOLOGY.

The Identity of Variations and Modifications.—Charles E. Woodruff (Plattsburgh, N. Y.) calls attention to the fact that none of the current theories of heredity will satisfactorily explain the pathologic and anomalous conditions which the physician sees every day, but which the general biologist never studies, as he deals mostly with the healthy. The biologists are diametrically opposed to each other in some of their statements of what are apparently variations due to an inherent power of the organism to vary, while others consider all these differences to be acquired, that is, modifications due to the environment and yet transmissible. As so many of man's anomalies do not come under either definition, it is suggested that there is no difference between variations and modifications, the two classes being merely artificial classifications with no basis in fact. Each is due to causes acting either early or late, as the case may be, and each is hereditary as long as the causes last, generation to generation. Indeed, there is often no way of determining whether a given anomaly is a variation or an acquired modification. Transient heredity is the term suggested for those cases where an organism is modified for some generations and then returns to the normal. Some changes can be permanent, as when they are due to an actual chemical change in the germ protoplasm. Neither school of biologists can be right if the other is wrong, and the general trend of opinion is in the direction of considering both right, and that some missing links will cause a compromise. It is pointed out that in biologic theories of every sort, whether in the matter of heredity, the origin of variations, the origin and explanation of life, regeneration and indeed every biologic problem now discussed, there is a curious tendency to look upon living protoplasm as a complex inert chemical, having no innate powers of its own, but merely reacting to the multitude of forces impinging upon it. As it cannot vary of its own accord, it is merely modified. The constant tendency of every organism then is to be normal if it is only permitted. Herein lies the possibility of freeing society of its degenerates by finding out what causes them, and then removing the causes. The whole trend of modern thought is in this direction, not only of the students of the lower classes, but of physicians also. It is a complete overthrow of the idea that these cases are happening without cause, and it throws out much hope for the future of the race.—*American Medicine*, October 14 and 21, 1905.

Etiology and Prevention of Smallpox.—W. T. Councilman (Boston, Mass.) gives the results of an investigation of smallpox, undertaken by members of the Pathological Department of the Harvard Medical School. It is believed that the organism which constitutes the virus of vaccinia and smallpox is the same; that in vaccinia it undergoes a definite cycle of development, resulting in a structure, the gemmules arising from simple growth and segmentation; that in smallpox a further and more complicated cycle of development, in which probably sexual forms occur, is added to the vaccine cycle. It is only in man and in the monkey that the conditions are favorable to the development of the cycle which constitute smallpox. The intranuclear parasites are just as characteristic for smallpox as are the cytoplasmic forms for vaccinia. They are found in both variola inoculata and in variola vera. The spores which arise from the multiplication of the intranuclear bodies constitute the contagion or smallpox, which is capable of air transmission. This introduced into a susceptible animal, develops the typical disease, smallpox, both cycles of the organism taking place in the lesions. In the nonsusceptible animal, such as the calf or rabbit, only the single, and probably asexual cycle is developed, constituting vaccine. The work which is nearing its temporary conclusion has left the fundamental questions relating to the disease unanswered. These relate to: (1) The parasite and its complete life cycle. (2) The relationship between vaccinia, variola inoculata and variola vera. (3) The mode of infection in variola vera. (4) The mode of production of the exanthem. (5) The immunity, its mode of production, and the relationship between the natural and acquired immunity.—*American Medicine*, October 21, 1905.

Coccidioidal Granuloma.—W. Ophuls, San Francisco (*Journal A. M. A.*, October 28), describes a condition all the cases of which, except the one from which the original description was made, have occurred in California. The parasite was first considered to be a protozoon, but later researches have proved its fungoid nature. Three new cases, in addition to the ten previously published are here reported. While it has a resemblance in some respects to blastomycetic dermatitis, the lesions as a rule are not confined to the skin as usually in that disease, and the clinical picture is much more complex on account of the participation of so many and various organs. The characteristic nodule formation closely resembles tubercles, and if the lungs are affected secondarily by the blood current the resemblance to miliary tuberculosis is rather striking. In its predilection for certain organs it resembles tuberculosis. The organism is described and the name *Oidium coccidioides* is proposed for it by the author. Synopses of previously described cases are included in the paper, which is well illustrated with figures showing the forms and the lesions produced by the parasite.

THERAPEUTICS AND PHARMACY.

The Office Treatment of Diseases of the Rectum, with a Description of Some New Methods.—Charles B. Kelsey says that while radical operations under general anesthesia usually save the patient time and suffering, yet conditions are such that it is necessary to treat very many cases under local anesthesia in the office. A method he once employed for this purpose was the injection of hemorrhoids with carbolic acid, but this he abandoned years ago. For securing local anesthesia he prefers eucaine to cocaine, and he also believes that this agent is much to be preferred to the injection of simple water, for the same object, on account of the large amount of fluid required in the latter case. Local anesthesia is open to the serious objection, however, that by it the sphincters cannot be stretched without pain, on which account a very large proportion of rectal surgery is left dependent on general anesthesia. In speaking of fissure, the author says that, while not the method of choice, still almost as many cures can be effected by incising the sphincter under local anesthesia as by stretching it under gas or ether. The application of the actual cautery for pruritus is, if anything, more satisfactory if done in several sessions under local anesthesia than if but one treatment is given under general anesthesia. Fistula can sometimes be satisfactorily treated in the office, but much judgment is necessary in selecting the cases. The author also describes a new office treatment for hemorrhoids, which he has practised for some time with good results. It consists in punctate cauterization of the tumors with a needle heated by electricity, the part being first rendered insensitive by injecting a few drops of weak eucaine solution. Only one or two applications are made at a time, and the treatment should not be repeated oftener than twice a week at first. The patient is not expected to be confined to the house or kept from his ordinary business. The time consumed by the treatment in an ordinary case is usually about three months, though it can be done in much less. The author has not observed any complications during ten years' use of the method, and he considers it a valuable procedure in cases in which, on account of the patient's timidity or for other reasons, the clamp and cautery or ligature are not used.—*Medical Record*, October 14, 1905.

Report on a Series of Experiments to Determine the Antitoxic Depreciation of Antidiphtheric Serum.—L. C. Layson (Detroit, Mich.) bases his article on a laboratory study of anti-

diphtheric serum representing the stock from which the market had been supplied, together with samples returned from the market, all kept under the varying conditions encountered by field antitoxin. He concludes that the antitoxic value of antidiphtheric serum is retained much longer than has hitherto been believed. The majority of diphtheric serums retain their antitoxic potency unimpaired or but slightly diminished for two, three, four or even five years, and that the maximum depreciation of the occasional serum does not exceed 33.1-3%, which contingency is guarded against in the practice prevalent with American mercantile antitoxin establishments of adding an excess of serum sufficient to cover the loss sustained by the occasional sample.—*American Medicine*, October 28, 1905.

The Roentgen Ray in the Treatment of Goiter is a theme discussed by Dr. L. Goerl in the *Muenchener Med. Wochenschrift*. The author believes that goiters should react very favorably to treatment with Roentgen rays, inasmuch as they are covered with only a thin layer of tissue, so that a large part of the active rays is able to penetrate the glandular structures, and because they contain many abnormal cells, which are easier destroyed by Roentgen rays than normal cells. He exposed eight patients afflicted with goiter to the Roentgen rays; in the first patient's case the neck diminished two inches after four exposures lasting ten minutes each; after some months the lateral enlargement had entirely disappeared. In all the other cases the neck improved in appearance, and many of the subjective symptoms disappeared. The length of time of the treatments was never greater than ten minutes, the distance was unusually ten cm., and the interval between treatments was from four days to three weeks.—*Journal of Physical Therapy*.

Quinin and Iron in Pneumonia.—C. F. Nieder, Geneva, N. Y. (*Journal A. M. A.*, November 18), reports that he has treated six cases of pneumonia according to the method of Galbraith, with large doses of quinin and tincture of chlorid of iron (see *Journal A. M. A.*, July 9, 1904, and Jan. 28, 1905), with very satisfactory results. Histories of three of the cases are given. He remarks especially the effect of this treatment on the circulation. Instead of the high-tension pulse usually present in pneumonia, the pulse was of nearly normal tension and of good volume. Cyanosis, when present, was promptly relieved.

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